

RPI TECHNICAL REPORT MP-82

A DETAILED EVALUATION OF A LASER TRIANGULATION RANGING SYSTEM FOR MOBILE ROBOTS

by

Thomas J. Clement





Rensselaer Polytechnic Institute

Troy, New York 12181

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School of Engineering Rensselaer Polytechnic Institute Troy, New York

August 1983



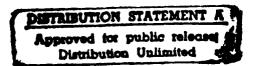


Table of Contents

LIST OF FIGURESiv
ACKNOWLEDGEMENTv
ABSTRACT vi
1. INTRODUCTION AND HISTORICAL REVIEW
2. ML/MD VISION SYSTEM THEORY
2.1 Laser Triangulation
2.1.1 ML/MD Vision System Accuracy Factors10
2.1.2 Detector "Cone of Vision" Problem10
2.1.3 Laser Triangulation Justification
2.2 Concept of Scanning Laser17
2.3 ML/MD Vision System Data Interpretation
3. OVERVIEW OF VISION SYSTEM21
3.1 Mast and Associated Electronics21
3.2 Telem Card
3.3 Prime GPIB
3.4 Prime Computer Programs27
3.5 The Modeler
3.5.1 What the Modeler Does with the Data29
3.5.2 Modeler Slope Hazard Equations
3.5.3 Modeler Step Hazard Determination
3.5.4 Classification of Hazards32
3.5.4.1 Step Hazards32
3.5.4.2 Slope Hazards

3.5.4.3 Insufficient Data	33
3.5.4.4 Farthest Return Less Than 1.5 Meters Away	35
3.5.4.5 Crosspath Hazards	36
3.5.4.6 Bad Data	36
4. TESTING PROCEDURES	39
4.1 Single Step Tests	41
4.2 Slope Tests	41
4.3 Two Obstacles Tests	45
4.4 Parallel Obstacles Tests	54
4.5 Insufficient Data Returned Tests	58
4.6 Range Tests	58
4.7 Holes Tests	66
5. CONCLUSIONS	77
6. REFERENCES	82
7. APPENDIX	85
7.1 TELEM6.TC - Microprocessor Telemetry Program	86
7.2 Tests	96
7.2.1 Single Step Test Results	97
7.2.2 Slope Test Results	107
7.2.3 Two Steps Test Results	175
7.2.4 Parallel Obstacles Test Results	184
7.2.5 Range Test Results	191
7 2 6 Hole Tests Posults	211

LIST OF FIGURES

Figure	1.	Mars Rover with SL/SD Vision System	3
Figure	2.	Laser Scan Pattern of SL/SD Vision System	4
Figure	3.	Triangulation Equations	8
Figure	4.	Laser/Detector Intersections	9
Figure	5.	Effect of Laser Shot Density on Resolution	11
Figure	6.	Laser/Detector Distance Effect on Resolution	12
Figure	7.	"Cone of Vision" Effect on Step Hazard Data	14
Figure	8.	"Cone of Vision" Effect on Slope Hazard Data	15
Figure	9.	Increasing Slope Effect on Step Hazards	19
Figure	10.	Examples of Missing Returns	20
Figure	11.	Block Diagram of Vision System	22
Figure	12.	Multi-Laser/Multi Detector Mast	24
Figure	13.	Output from Telemetry Processor Card	26
Figure	14.	Vehicle Approaching Differing Slope Grades	34
Figure	15.	Cross Path Hazards	37
Figure	16.	Tables of Azimuth and Elevation Angles	40
Figure	17.	20 cm Step Test	42
Figure	18.	25 cm Step Test	43
Figure	19	30 cm Step Test	44
Figure	20.	20 Degree Slope Test with B=.90	46
Figure	21.	25 Degree Slope Test with B=.90	47
Figure	22.	30 Degree Slope Test with B= 90	48

Figure	23.	35 Degree Slope Test with B=.90	49
Figure	24.	20 Degree Slope Test with B=.85	50
Figure	25.	25 Degree Slope Test with B=.85	51
Figure	26.	30 Degree Slope Test with B=.85	52
Figure	27.	35 Degree Slope Test with B=.85	53
Figure	28.	Two Obstacles Test: Heights at 0 and 35 cm	55
Figure	29.	Two Obstacles Test: Heights at 20 and 35 cm	56
Figure	30 .	Two Obstacles Test: Heights at 35 and 35 cm	57
Figure	31.	Path Obstacle Test with 1 meter Separation	59
Figure	32.	Insufficient Data Test	60
Figure	33.	No Data Beyond 1.5 meters test	61
Figure	34.	40 cm Range Test	63
Figure	35.	70 cm Range Test	64
Figure	36.	230 cm Range Test	65
Figure	37.	Small Square Hole with 30 cm Depth Test	67
Figure	38.	Small Square Hole with 36 cm Depth Test	68
Figure	39.	Rectangular Hole with 25 cm Depth Test	70
Figure	40.	Rectangular Hole with 30 cm Depth Test	71
Figure	41.	Rectangular Hole with 36 cm Depth Test	72
Figure	42.	Large Square Hole with 20 cm Depth Test	73
Figure	43.	False Return Due to Reflection	74
Figure	44	Large Square Hole with 30 cm Depth Test	76

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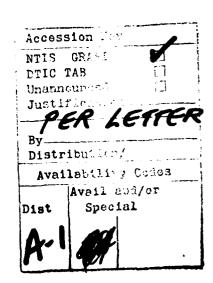
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I would like to thank Dr. Stephen Yerazunas whose personal drive has made me feel very privledged to have known and worked with him. I only wish I had more time to have gotten to know him better.

I would also like to thank Dr. David G. Gisser for his experience and guidance over this past year in answering my questions as well as helping me put this report together.

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ABSTRACT

This report is the culmination of several theoretical and design papers on a low resolution, short range vision system to be used for planetary exploration. Included is a theoretical discussion of the Scanning Laser / Multi-Detector laser triangulation system, designed and built in the Rensselaer Polytechnic Institute Mars Rover Laboratory. Discussed in depth is the actual test performance of the Scanning Laser / Multi-Detector System.

All tests presented were performed in controlled, static, laboratory conditions. To add to the credibility of the tests, the materials used were of the same reflective properties as dirt. The actual tests performed included: single step tests, single slope tests, multiple step tests, and range tests. All of these tests were performed to show the capabilities of the vision system and its ability to detect the presence of terrains hazardous to the safety of the vehicle.

The results showed both the vision system's strengths and weaknesses. Of special interest was that many of the limitations uncovered were software based. The test results are included, in the Appendix.

PART 1

INTRODUCTION AND HISTORICAL REVIEW

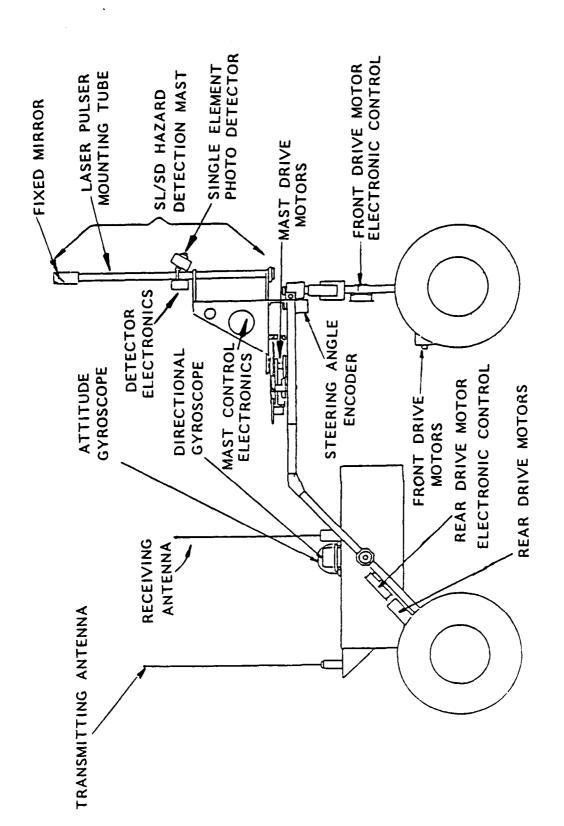
In the last several years, tremendous advances have been brought about in the field of robotics. This has been due, in part, to advances in vision systems technology and in the development of artificial intelligence for interpreting the data obtained. The Mars Rover Project at Rensselaer Polytechnic Institute has been a product of these advances.

Since 1968, when the effort began under a NASA grant, the project has undergone many changes both in the design goals and in the physical vehicle. In the beginning, the goal was to create a vehicle which could negotiate rocky terrain with little difficulty. Mathematical models were created to determine various stresses and strains due to inertial forces as well as external forces which may be present (see Reference 14). Particular attention was paid to the design of the wheels. The vehicle at one time, was a two wheel drive device which could fold itself into a small package, facilitating transportation to Mars. Because of difficulties the vehicle encountered negotiating certain obstacles, it was later decided to give it four wheel drive.

Once most of the design and construction of the vehicle itself was completed, attention was placed on the design of an onboard vision system. The need for a vision system was prompted by the desire to include a shortrange terrain navigation system on vehicle. local navigation system was wanted because the communications time between Earth and Mars varies from 9 to 40 minutes, depending on the distance between them. Obviously, having to transmit a view of the terrain to Earth, process the information, and send a command back would take an exorbitant amount of time and the vehicle wouldn't get very far very fast. The need for a vision system was first filled by a Single-Laser/Single-Detector (SL/SD) mast, Figure 1. The laser fired 15 azimuth pulses per scan and the detector could detect relatively gross hazards at distances of 1.5 meters and heights of 0.25 meters, Figure 2. The addition of the vision system's mast precluded the vehicle's folding ability. Since the vision system was determined to be of greater importance than the ability of the vehicle to fold, this was a more than equitable loss. The testing done was with the vehicle outdoors on terrain very similar to what would have been expected to be encountered on Mars. Extensive testing proved that the system worked as (Reference 6).

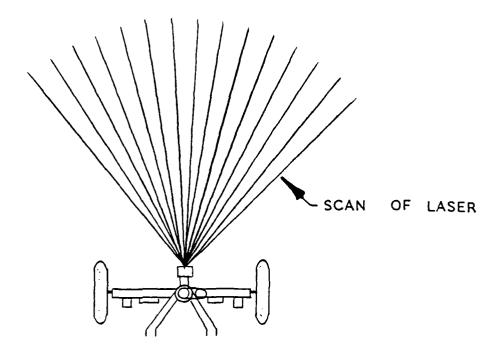
The simple "hazardous/not hazardous" resolution of the system was determined to be overly conservative and so a new system design was sought. Using what had been learned from the design of the

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FIGURE 1. MARS ROVER WITH SL/SD SYSTEM



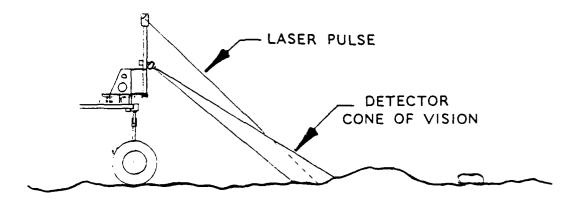


FIGURE 2. LASER SCAN PATTERN OF SL/SD SYSTEM

SL/SD system, a Multi-Laser/Multi-Detector (ML/MD) system was designed and built (see References 1, 3, 5, 7, 11). In addition to the actual hardware that made up the new vision system, there was also simulation as well as realtime software written to interpret the data which the new mast provided (see References 4, 10).

The Mars Rover Vehicle has thus evolved into a dual-microprocessor controlled vehicle able to negotiate rough terrain with a Multi-Laser/Multi-Detector vision system. The development of the new vision system mentioned above included: the design of a new mast with the associated drive electronics and mechanics, the design of a new microprocessor board to control the flow of data to a mainframe computer, and the development of new software to interpret the information obtained by the mast.

Throughout these recent developments, there has been relatively little done to determine whether the modifications were improving the system or making it unnecessarily complicated. For instance, up until very recently there had been very little testing (Reference 9) done to determine how well the new detection hardware works. Some questions that need to be answered include: is this vision system reliable, does it do the assigned task of obtaining reasonably accurate data, do the benefits outweigh the possible problems of the added complexity of the system, and how accurate is the data obtained by the system?

This report will attempt to show some of the strengths and weaknesses of the vision system and should answer the questions raised concerning the accuracy of the obtained data. Since all tests will be performed in the relatively controlled environment of a laboratory, the question of reliability under adverse conditions can not be completely resolved; only obvious reliability problems will be pointed out. Inherent limitations of the system due to the system configuration will be discussed. Finally, suggestions for future modifications to improve upon the system are presented throughout.

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PART 2

ML/MD VISION SYSTEM THEORY

In order for the test results to be understood, it must first be understood how the Multi-Laser/Multi-Detector Vision scanning system works. Therefore, the concepts of Laser Triangluation and of the scanning laser are presented first.

2.1 Laser Triangulation

The idea of laser triangulation is that, given a known angle of a laser being fired and a known angle of a detector receiving the returning light rays, the height and range of the terrain can be determined through applied geometry. This concept and associated equations are shown in Figure 3. By firing the laser at a series of elevation angles at a constant azimuth it is possible to obtain height and range data of the terrian for any particular azimuth (see Reference 15). The heights and ranges are determined from the intersection points of the laser and detector angles. A system with 18 laser elevations and 19 detector angles is shown in Figure 4.

R = FORWARD DISPLACEMENT OF LASER RAY ORIGIN

HR = HEIGHT OF LASER RAY ORIGIN

β; = ELEVATION ANGLE OF LASER RAY

a: = ANGLE OF LASER RETURN "SEEN" BY DETECTOR

 $H_{\alpha i}$ = EFFECTIVE Z-AXIS INTERCEPT HEIGHT OF REFLECTED RETURN

Z_t = TERRAIN HEIGHT AT OBSERVED TERRAIN POINT

Rt = TERRAIN RANGE AT OBSERVED TERRAIN POINT

$$Z_{t} = \frac{H_{\beta} TAN_{\beta i} - H_{\alpha j} TAN_{\alpha j} + R_{\beta}}{TAN_{\beta i} - TAN_{\alpha j}}$$

$$R_{t} = \frac{TAN_{\alpha i} ((H_{\alpha i} - H_{\beta}) TAN_{\beta i} - R_{\beta})}{TAN_{\beta i} - TAN_{\alpha j}}$$

FIGURE 3. TRIANGULATION EQUATIONS

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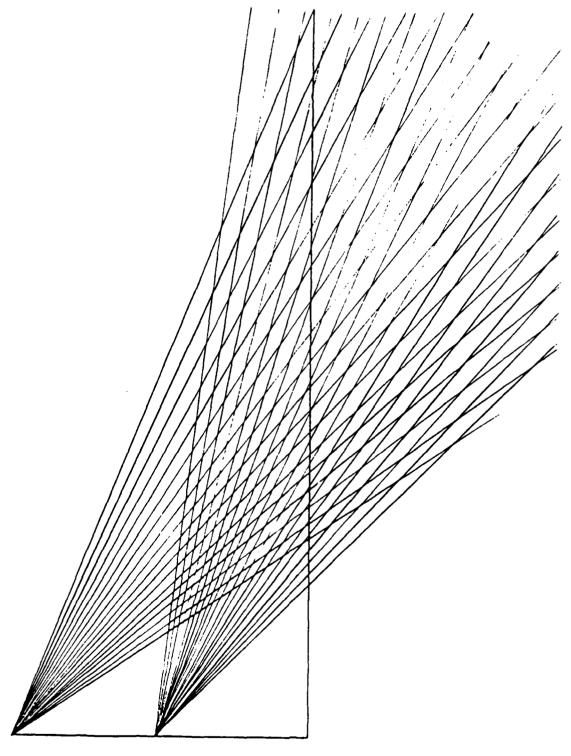
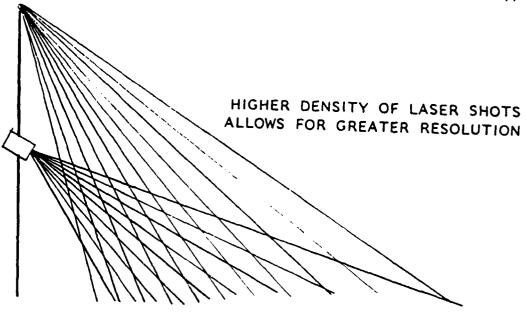


FIGURE 4. LASER/DETECTOR INTERSECTIONS

Assuming the use of a rotating or oscillating mast, which allows for several azimuths, there are at least two ways to produce several laser elevation shots per azimuth. One of these is to use several lasers, each firing at a slightly different elevation. Another method, the one used for the ML/MD system, is to use a single laser firing at multiple elevations to produce the effect of multiple lasers.

2.1.1 ML/MD Vision System Accuracy Factors

The accuracy of the data obtained by triangulation system depends on essentially three independent factors. They are: the laser characteristics, the detector characteristics, and the distance between the lasers and the detectors. The density of laser shots will affect resolution as depicted in Figure 5. The higher density of laser shots produces a more well defined envelope of the terrain. The angular resolution of the detectors is also a factor and is a function of the number of detectors and the desired total angular coverage. Finally, the accuracy is also affected by the distance between the lasers and the detectors as shown in Figure 6. Of these three factors, this one can provide the greatest improvement in accuracy in the easiest possible way, i.e. with just a simple change in component locations.



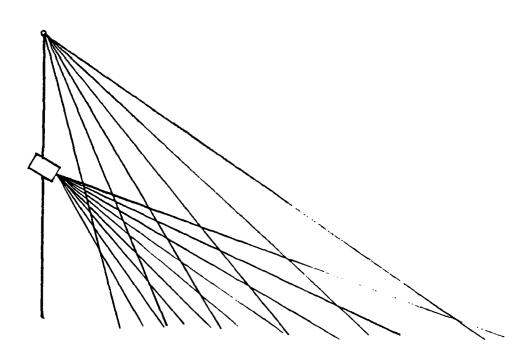


FIGURE 5. EFFECT OF LASER SHOT DENSITY ON RESOLUTION

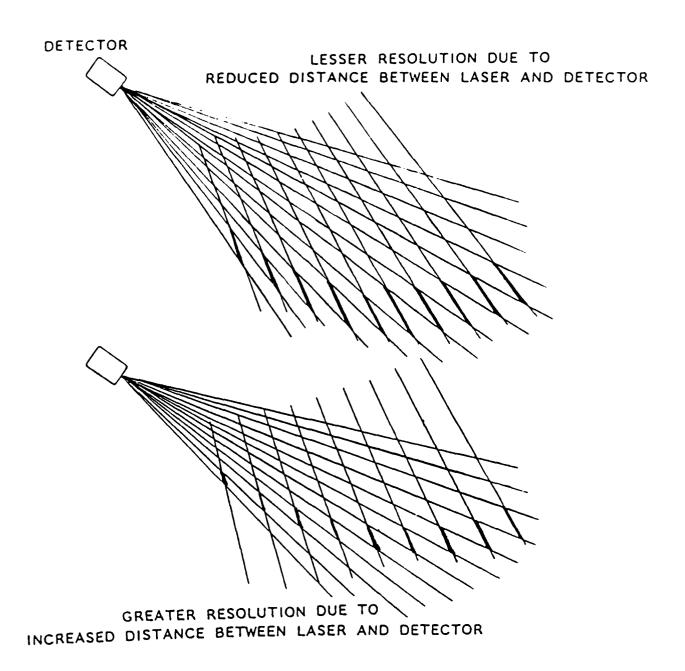


FIGURE 6. LASER/DETECTOR DISTANCE EFFECT ON RESOLUTION

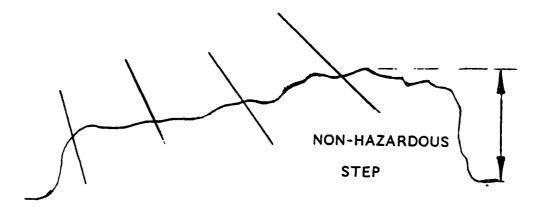
2.1.2 Detector "Cone of Vision" Problem

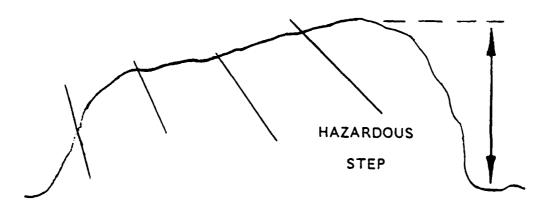
A problem which arises from the application of this type of system is "cone of vision", which that the each detector possesses, unfortunately causes not a point, but a line segment of data to be considered a return for each detector. This problem, as illustrated in Figure 7 for step hazards and Figure 8 for slope hazards, is considered to be quite important in the determination of what is and what is not a hazard. For instance, if a step hazard is defined to exist whenever a step exceeds 25 cm (10 inches), but the system has a resolution of only 5 cm (2 inches) as a result of the "cone of vision" effect, it would be necessary to treat any hazard greater than 20 cm. (8 inches) as hazardous just to be safe. By the same token, if the system had a 5 degree angular resolution and a slope hazard is defined as any slope grade of greater than 30 degrees, then a slope encountered with a grade of 25 degrees must be treated as a hazard.

2.1.3 Laser Triangulation Justification

The justification for laser triangulation, as opposed to some other method to determine obstacle height and range, is the faster rate at which the obtained data can be analyzed. This is due, partly, to the fact that the single scan bit rate is only:

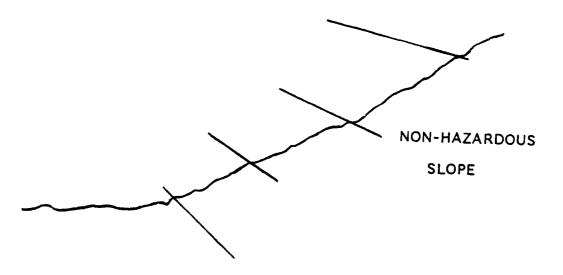
$$B=N(L) * LOG2(N(L)) * LOG2(N(D))$$





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FIGURE 7. "CONE OF VISION" EFFECT ON STEP HAZARDS



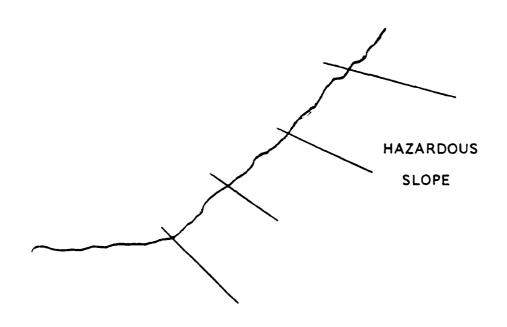


FIGURE 8. "CONE OF VISION" EFFECT ON SLOPE HAZARDS

where:

B is the number of bits per scan

N(L) is the number of laser shots fired

N(D) is the number of detectors used

For instance, if there were 1024 laser shots fired per scan and 64 detectors used, the number of bits required would be 1024*10*6 or 61440 bits per scan. If a scan were to occur once every 3 seconds, this would require data to be processed at a rate of about 20000 bits per second which can be handled quite easily, even by some microprocessors. For comparison, digitized voice processing requires an even higher rate. Another advantage which a laser triangulation system has over other systems is that each laser shot fired is tagged, meaning that each shot is fired at known azimuth and elevation angles. The advantage that this provides is that with known detector angles the determination of the height and range are a matter of plugging all of this information into a simple geometric equation.

What has not been attacked are the drawbacks which laser triangulation has. For instance, the resolution of a laser triangulation system is usually limited. Increasing the density of laser shots as well as increasing the number of detectors would increase it. Unfortunately, either one of these fixes would also increase the number of bits required to obtain a complete scan. In the case of the

Mars Rover vision system, these problems do not apply because a high resolution is not required.

2.2 Concept of the Scanning Laser

The Multi-Laser/Multi-Detector (ML/MD) vision scanning system works by firing a single laser through a series of elevations and azimuths and then receiving the reflections from the terrain back upon an array of detectors. By using a single fixed position laser firing at a rotating mirror, the cost and weight of the system are greatly held down. Also, the complexity of the drive electronics is reduced as only a single laser need be contended with. In addition, the amount of calibration required for the system is slight. If a rotating mirror is used, as in the case of the RPI Mars Rover, the mirror should be positioned with respect to a shaft encoder. This way, any elevation angle within the resolution of the encoder is available.

2.3 ML/MD Vision System Data Interpretation

The data obtained by an ML/MD vision system must be interpreted somehow. If what was described above with respect to the resolution was enough to completely describe a given terrain, then all that is necessary would have been said. But, there are other factors which have not, as yet, been pointed out. The most obvious of these

is that the information obtained must be interpreted with respect to the orientation of the vehicle. This information could be provided by gyroscopes giving the relative pitch and roll of the vehicle. For instance, if the vehicle were on an up-slope, then steps of lower magnitude than those acceptable when the vehicle is on flat ground would be tolerable. This is illustrated in Figure 9.

Another factor that must be considered is what to do about laser shots fired for which there are no detected returns. Two examples of this are shown in Figure 10. As can be seen in each of these Figures, the unknown terrain may or may not be hazardous. Because of this ambiguity, it must be assumed that whenever there are no returns, the unknown terrain is hazardous. This means that even with no returns, there is information conveyed, specifically that there is a hazard present.

The programs which do these interpretations are not the subject of this paper. They are mentioned merely for completeness. Only the modeler will be discussed later in any detail. Information about how this software works is available in References 4, 9, and 10.

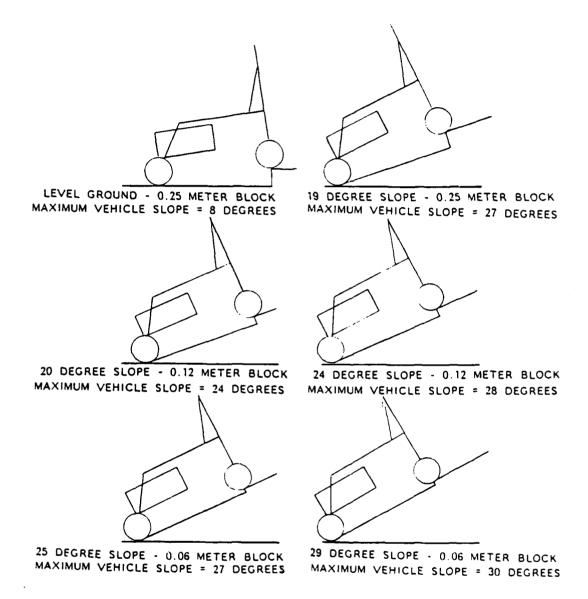
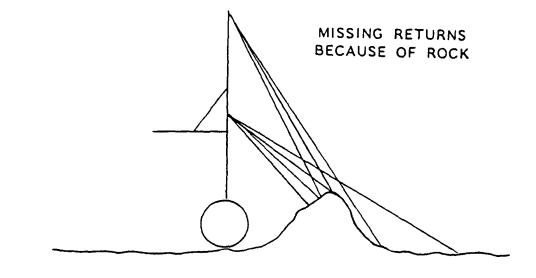


FIGURE 9. INCREASING SLOPE EFFECT ON STEP HAZARDS



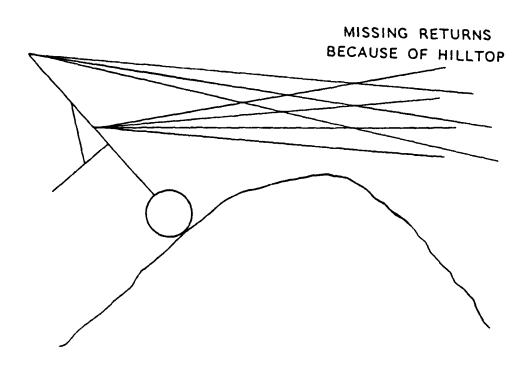


FIGURE 10. EXAMPLES OF MISSING RETURNS

PART 3

OVERVIEW OF VISION SYSTEM

Before the test results of the RPI Mars Rover vision system are discussed, an overview of the vision system's hardware and software components will be given. Figure 11 presents this system in a block diagram form. The separate components are described in detail below.

3.1 Mast and Associated Electronics

The electronic hardware used on the vision system for the Rensselaer Mars Rover consists of several components. The laser and housed in the rotatable mast. the detector arrav are The semiconducor laser is capable of producing infrared light pulses with a wavelength of 904 nm and a peak power of 100 watts at a 10000 hertz rate with a .04 percent duty cycle. The light from the laser is focused by a lens and then reflected from a rotating 8-sided mirror. This reflected light then hits the terrain. Some portion of whatever light reflected from the terrain passes through the 35 mm camera lens and onto a photodetector diode array. The photodiode array consists of 20 photodiodes with a common cathode mounted in a 20 pin DIP (Dual Inline Pin) package.

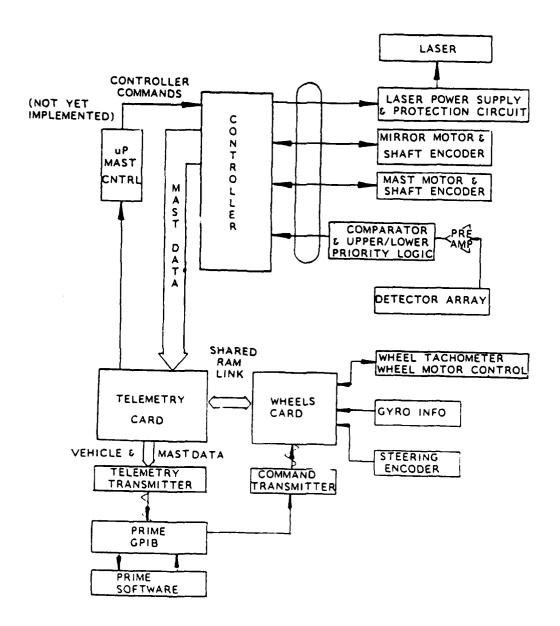


FIGURE 11. BLOCK DIAGRAM OF VISION SYSTEM

Each photodiode is connected to an integrated circuit operational amplifier. Comparators then determine whether or not a particular photo-diode received any of the return light and the upper and lower detector numbers of those hit are determined. These numbers are fed through slip rings to the control circuitry in the non-rotating back of the mast (see Reference 11). The mast is shown in Figure 12.

The rotation of the mast, the rotation of the 8-sided mirror, and the timing for firing the laser are controlled by electronics on five circuit cards located on the back of the mast (see References 3 and 7). These cards are supplied the position of the rotating mirror by a shaft encoder which puts out 2048 pulses per revolution along with a zero pulse. The information makes available 256 different elevation angles between 0 and 90 degrees (8 times per revolution of the mirror). There is also a shaft encoder which identifies the azimuth position of the mast. This encoder allows up to 256 different azimuth angles; some of which cannot be used because they occur in the back of the scan. When a laser pulse is fired, 32 bits of information are shifted into FIFO (First-In-First-Out) memories. These are end of scan, end of azimuth, azimuth number, elevation number, upper detector returned number, and lower detector returned number.

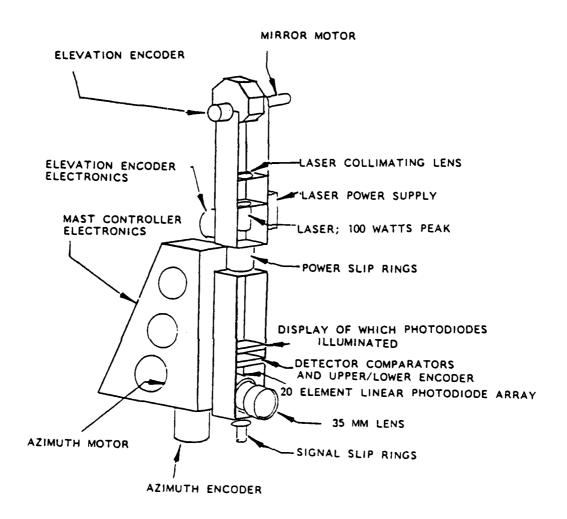


FIGURE 12. MULTI-LASER/MULTI DETECTOR MAST

All of the data shifted into the FIFOs, as well as the data describing the vehicle's current status must be buffered and sent to the computer running the realtime control routines. The vehicle status data includes information on the wheel speeds, the gyro angles, and the steering angle. This is done by the telemetry stand-alone microprocessor board located in the vehicle card cage (see Reference 2). The program TELEM6.TC currently runs the processor. This program acts as both a diagnostic tool as well as a data flow controller. It's output display, shown in Figure 13, tells immediately if there are any major faults with the data coming from the mast. When a period is printed, vehicle data for a particular scan has just been sent. The number shown to the left of each colon is an azimuth number and the number shown to the right of the colon is the number of elevation shots fired for that particular azimuth. At the end of scan 'EOS' is printed, as well as the number of azimuths and the total number of laser shots fired. Any deviation from the defined laser shot numbers can easily be detected from this displayed output. A listing of TELEM6.TC can be found in Appendix Section 7.1.

 $\begin{array}{l} \dots \dots \dots 000:32.01:32.02:32.03:32.04:32.05:32.06:32.06:32.08:32.08:32.09:32.10:32.11:32. \\ 12:32.13:32.14:32.14:32.15:32.16:32.17:32.18:32.19:32.20:32.21:32.22:32.23:32.24:32.25:32.26:32.27:32.27:32.29:32.29:32.31:32.31:32. \end{array}$ $\begin{array}{c} \dots \dots \dots 000:32.01:32.02:32.03:32.04:32.05:32.06:32.07:32.08:32.09:32.09:32.10:32.\\ 12:32.13:32.14:32.15:32.16:32.17:32.18:32.19:32.20:32.21:32.22:32.23:32.24:32.25:32.26:32.27:32.27:32.28:32.29:32.31:32.31:32.\\ \end{array}$ $\begin{array}{l} \dots \dots \dots 000:32.01:32.02:32.03:32.04:32.05:32.06:32.07:32.08:32.09:32.10:32.11:32. \\ 12:32.13:32.14:32.16:32.16:32.17:32.18:32.19:32.20:32.21:32.22:32.23:32.24:32.25:32.26:32.25:32.27:32.28:32.29:32.30:32.31:32. \end{array}$ $\begin{array}{c} \dots \dots \dots 00:32.01:32.02:32.03:32.04:32.06:32.06:32.06:32.08:32.08:32.09:32.19:32.11:32. \\ 12:32.13:32.14:32.15:32.16:32.17:32.18:32.19:32.20:32.21:32.22:32.23:32.24:32.25:32.26:32.27:32.27:32.28:32.29:32.30:32.31:32. \end{array}$ E0S 32 1024 E0S 32 1024 E0S 32 1024

32 1024

EOS

FIGURE 13. OUTPUT FROM TELEMETRY PROCESSOR CARD

3.3 Prime GPIB

The data which the telemetry board handles is sent via two coaxial cables to a PRIME 750 in the RPI Image Processing Lab, JEC Room 2318. The data enters the Prime via a GPIB (General Purpose Interface Board) (see Reference 5). This board controls a DMT (Direct Memory Transfer) into the main memory of the Prime computer. The board itself is controlled by the device driver T\$ROVR (see Reference 12).

3.4 Prime Computer Programs

There are basically three types of routines which use the data once it has made its way into the Prime Computer. The first of these routines are the realtime routines which take given data, determine what hazards exist, and decide what the Rover should do next; stop, turn, go, etc. As of the time this paper was written, the actual path selection routines on what the Rover's next move should be have not been used in realtime. However, they have been used in simulation (see Reference 10). In addition to the realtime routines, there are the post processing routines. These routines allow the user to look at the data. In fact, the various graphs in this paper were produced using the post-processing routines. A descriptive list of the names and particular functions of these routines can be found in the project report MP-80 (Reference 9).

The third type of routines are used for mast calibration. This routine is actually a form of a post-processor, but it is meant to be used only when, for some reason, some mast parameter needs to be changed. The calibration routines are especially useful in calibrating detector angles and elevations. Due to system limitations, it is almost impossible to make the detector's cone of vision identical for every detector, therefore, attempting to measure by hand the cone of vision's precise center for each detector also becomes an almost impossible task. Since the elevation angles at which the laser fires are known, detector calibrations can be achieved by feeding the mast known terrains at known slope angles. Since the only unknowns involved in obtaining this data are information relating to the detectors, these unknowns can be solved for. After several different slopes have been obtained, guaranteeing all detectors have received returns from more than a single laser elevation angle, a table of detector angles and heights can be created through linear regression (see Reference 9).

3.5 The Modeler

The heart of the realtime routines is the modeler. This is a subroutine which takes the given raw laser and detector data and produces a list of hazards for each scan. Then, it divides the hazard analysis into two catagories. The first of these is in-path hazard analysis. In-path hazard analysis detects hazards which exist along a

3.5.1 What the Modeler Does with the Data

Although a complete description of how the modeler works will not be given here (see References 9 and 10 for more), a general flowchart as well as equations of particular interest are discussed below. The in-path analysis is done for each azimuth one at a time. The first process is changing the incoming upper/lower detector number inputs to index values. Next, they are placed in the order of increasing range. Points which could be the sources of sensor quantization errors as well as those considered too distant in range are removed. Finally, the actual analysis begins starting with the determination of whether there are enough returns or whether the most distant return is too close. The data used for cross-path hazard analysis is extracted at this time for later use. Slope and step hazard cataloguing follows. After all in-path analysis has been completed, cross-path analysis is applied. The cross-path analysis compares characteristics of adjacent azimuths with valid data to determine the presence of either a cross-slope or a cross-step hazard. Both

cross-slope and cross-step hazards are lumped together as cross-path hazards. When the cross-path analysis is complete, the work of the modeler is finished.

3.5.2 Modeler Slope Hazard Equations

The modeler determines the slopes in an azimuth by taking the arctangent of the height difference divided by the range difference for each pair of valid adjacent elevation shots. The key to the modeler's ability to detect a slope hazard is the following equations:

where for a particular azimuth:

- J counter from 2 to the number of valid laser returns.
- CS the current elevation pair unadjusted slope estimate.
- OLDCS the previously determined value of CS.
- TZ() height (z-axis) coordinate array for each elevation.
- TR() range coordinate array for each elevation.
- AZSLOPE the adjusted zero slope with respect to the planet's coordinates and vehicle orientation. This value is determined using gyro and azimuth number information.

- ESTSLOPE the estimated, adjusted slope determined for the current elevation pair. Whenever this value is greater than the slope threshold, a slope hazard is flagged.
- B a coefficient which determines how much of the previous will be used in the current slope determination. Its values ranges from -1 to 1.

Of the above mentioned parameters, the coefficient B has the greatest impact on the estimated slope value. It determines how much smoothing of the slope occurs by injecting B amount of the previous slope into the current slope. This smoothing action helps to distinguish slope hazards from step hazards since step hazards consist of relatively high frequency variations. This low pass filter effect can be quite dramatic as shown in the testing.

3.5.3 Modeler Step Hazard Determination

The modeler is set up to determine step hazards using three separate pieces of information. These are: actual height variations, vehicle orientation information, and slope information. The reason for the use these last two pieces of information may not seem obvious, but will be explained here. As was stated earlier in THEORY, the vehicle's ability to negotiate a step decreases as the presence of a slope in the same direction as the step increases, but not vice versa. Therefore, it is necessary for the slope values, determined by the above method, to be injected into the step hazard analysis.

3.5.4 Classification of Hazards

There are six types of hazards which are classified by the modeler: step hazards, slope hazards, insufficient data hazards, most distant return to close hazards, cross-path hazards, and bad data hazards. The first four of these are determined by analysis of data returned in a single azimuth. The cross-path hazards are determined by intra-azimuth analysis. A bad data hazard is usually the result of some hardware element of the system failing. A more in-depth description of each of these follows.

3.5.4.1 Step Hazards

A hazard in which wheels of the vehicle cannot properly maneuver is known as a step hazard. Examples of step hazards include protrusions, such as rocks, and depressions, such as holes. Since the wheel radius is 25 cm. (10 in), a height greater than this would not allow the vehicle's wheels to negotiate it. In the case of a hole deeper than 25 cm. (10 in), the wheels could certainly get in, but there would be no guarantee that they could get out again. Also, just because the wheel got into a hole doesn't r.ean that it did so undamaged.

3.5.4.2 Slope Hazards

A slope hazard is defined as a hazard whose slope is greater than that which the vehicle can properly negotiate. An example of this type of hazard is hilly terrain. The nature of the dangers slope hazards present can be quite complicated. For instance, the vehicle might be on a progressively steeper hillside (as in Figure 14A). If the change is very gradual, the scanning laser, alone, will not notice the change. The other parts of the system, specifically the gyros, would be depended upon to supply the missing information. However, the ML/MD system is necessary for recognizing the presence of a sharp slope hazard before the vehicle actually encounters it. An example of such terrain is shown in Figure 14B.

3.5.4.3 Insufficient Data

When, for some reason, less than one-fourth of the total number of laser shots for an azimuth have returns accounted for, an insufficient data hazard is flagged. The reasons for not enough data being returned range from encountering a terrain with poor reflective properties to hardware failures.

The reflective properties of materials vary from excellent to terrible. As was determined (see Reference 9), the amount of light returned from such materials as black slate was not detected by the

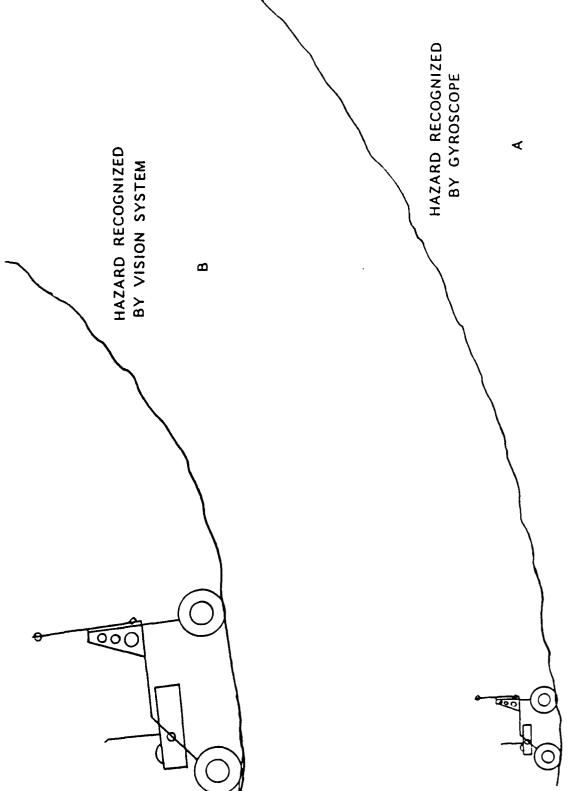


FIGURE 14. VEHICLE APPROACHING DIFFERING SLOPE GRADES

detectors at any range with any aperture settings. The most likely explaination for this occurance is that the black slate in question simply absorbed all, or almost all, incident infrared light on its surface. On the other hand, a material like brown cork reflected more light than black slate but less than wood. What this indicates is that different materials reflect infrared light differently. A material such as dry garden dirt, whose reflective ability was analyzed this year, reflects slightly better than the light brown cardboard analyzed last year. In any case, the poor reflective properties of a material could certainly account for an insufficient data hazard.

Hardware failures, given the number and complexity of components in a system like this, are almost inevitable. A particular problem which has crept up occasionally has been detector amplifier oscillations. Because returns are considered invalid when the upper and lower detector numbers differ by more than 1, an oscillation in a particular detector amplifier will cause most of the data from that scan to be disqualified resulting in an insufficient data condition.

3.5.4.4 Farthest Return Less Than 1.5 meters Away

When the terrain is such that the furthest laser return in a particular azimuth is less than 1.5 meters, the terrain further than this is classified as unknown and is automatically assumed to be hazardous. The reason this is flagged as a special hazard is that the

vehicle would have to back up to avoid anything that was any closer.

Thus, this type of hazard must also be avoided.

3.5.4.5 Crosspath Hazards

A cross path hazard is defined to be an occurence of 2 adjacent azimuths where, alone, the terrains do not necessarily constitute a hazard. But, when the terrains are next to each other, a hazard results. Both slope and step hazards are classified as crosspath hazards when either is encountered during crosspath analysis. However, the criterion for determining whether or not a slope or step hazard is present is more rigorous than the criterion applied for in-path analysis. This is because of the filtering which takes place before the crosspath analysis. The result is that it is possible for a certain terrain to be flagged with a crosspath hazard if the mast were viewing it from one angle, but would not register with a hazard when viewed from another angle. A typical crosspath hazard would be a boulder edge encountered in one azimuth and a hole encountered in an adjacent azimuth. This is depicted in Figure 15.

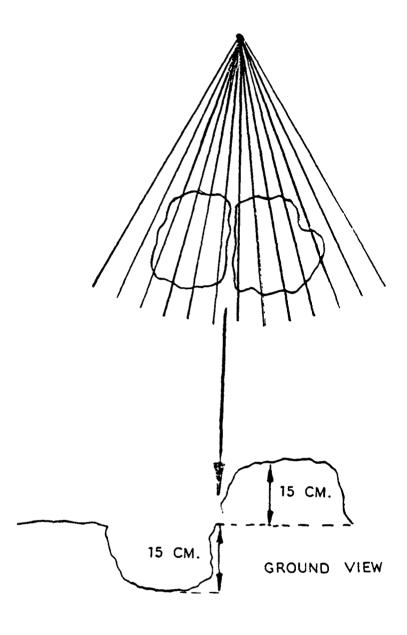


FIGURE 15. CROSS PATH HAZARDS

3.5.4.6 Bad Data

If the data obtained from the mast can not be interpreted, then another type of hazard must be catalogued. This type of hazard would occur if there was illegal or improper information supplied to the modeler compared to what is expected. For instance, there are supposed to be 32 azimuths, but, if for some reason 33 azimuths were fired, a bad data error would be flagged. The same is true if the number elevations fired differed from the number expected for a particular azimuth. A bad data error could be attributed to either a hardware failure, setting up the realtime software parameters with no consideration of the actual hardware used, or both. Bad data also raises questions concerning the reliability of theof the received data. As all bad data is thrown out, consistently bad data means that the Mars Rover vehicle would have to be commanded to stop until the bad data problem is solved.

PART 4

TESTING PROCEDURES

All testing was performed indoors on a concrete floor at a room temperature of approximately 23 degrees Centigrade (74 degrees Fahrenheit). The mast was rotating at approximately 16 revolutions per minute with the laser firing 32 azimuths each with 32 elevations. The azimuth and elevation firing angles used can be found in the tables in Figure 16. For all tests, the lens aperture was opened to 5.6 and the lens focus setting was .45 meters (note that this does not correspond to the settings on a camera since location of the photodiode array does not correspond to where the film would have been). The mast pitch and roll were each 90 degrees. The ground, for all tests except for the hole tests was 36 cm (14 in) below vehicle ground. With this in mind, the effective detector heights was 1 meter above vehicle ground and the effective laser height was 2 meters above vehicle ground. The data was collected using the program RECV2, it was run through the modeler using EXEC.POST2, and the graphs were generated using VIEW.MDL (for an explanation of these programs, see Reference 9).

Azimuth	Number Angle	(degrees) Elevation	Number Angle (degrees)
1	-43.56	1	23.56
ž	-40.74	2	24.61
3	-37.93	3	25.66
4	-35.13	4	26.71
5 6	-32.31	5	27.76
6	-29.50	6 7	28.80
7	-26.69	7	29.85
8	-23.88	8	30.90
9	-21.08	9	31.95
10	-18.26	10	33.00
11	-15.45	11	34.05
12	-12.64	12	35.10
13	-9.84	13	36.15
14	-7.02	14	37.19
15	-4.22	15	38.24
16	-1.41	16	39.29
17	1.40	17	40.34
18	4.21	18	41.39
19	7.02	19	42.44
20	9.83	20	43.49
21	12.64	21	44.54
22	15.45	22	45.59
23	18.26	23	46.63
24	21.07	24	47.68
25	23.88	25	48.73
26	26.69	26	49.78
27	29.50	27	50.83
28	32.31	28	51.88
29	35.12	29	52.93
30	37.93	30	53.98
31	40.74	31	55.03
32	43.55	32	56.07

TABLE OF AZIMUTH ANGLES

TABLE OF ELEVATION ANGLES

FIGURE 16. TABLES OF AZIMUTH AND ELEVATION ANGLES

Terrains were created using cardboard sheets and boxes with reflective properties similar to those of dry dirt. It should be noted that detectors 6 and 11 were not functioning at the time of testing.

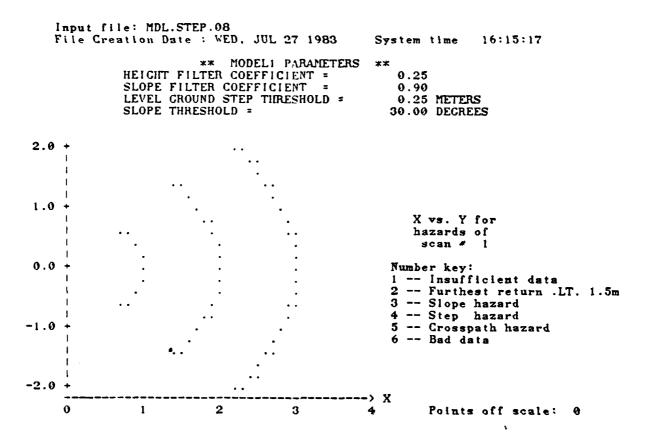
4.1 Single Step Tests

The first type of hazards tested for were step hazards. A rectangular (66 by 61 cm (26 by 24 in)) step was placed approximately 1 meter in horizontal distance from the front of the mast. There were 8 different step levels tested using heights from 5 cm to 45 cm (2 to 18 inches) in 5 cm (2 in) increments. The step size which was defined in the modeler to be a step hazard was 25 cm (10 in). The resulting graphs and data descriptors for heights of 20, 25, and 30 cm. (8, 10, and 12 in) are shown in Figures 17, 18, and 19. As can be seen, a step hazard was flagged at the desired step threshold height. Also, the height determined was very close to the actual height of the obstacle.

4.2 Slope Tests

Because the values of the slope coefficient B and the slope threshold determine how the modeler interprets the data, with respect to slope hazards, the parameters were varied to demonstrate the modeler's reactions. The test itself consisted of placing a ramp 183 cm long by 66 cm wide (72 by 26 in) in front of the mast. The distance

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NO HAZARDS CATALOGED THIS SCAN

FIGURE 17. 20 CM STEP TEST

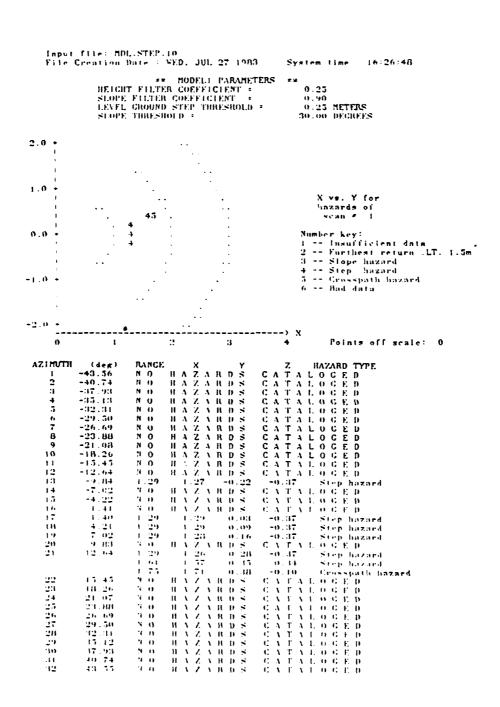


FIGURE 18. 25 CM STEP TEST

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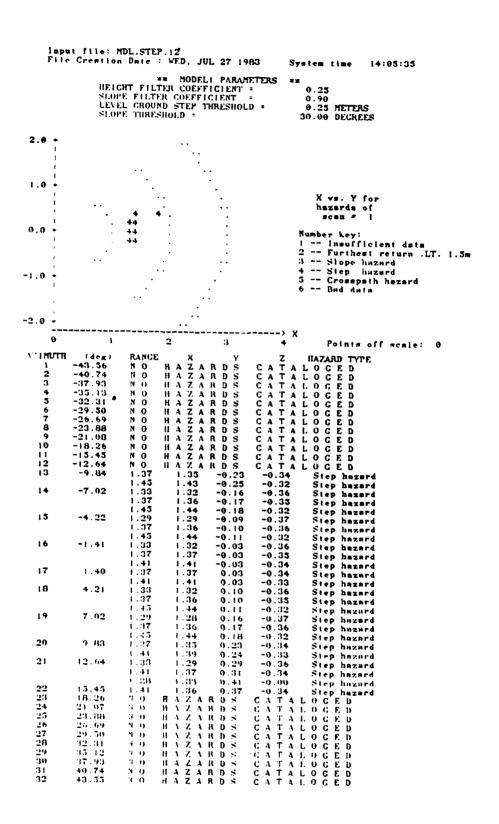


FIGURE 19. 30 CM STEP TEST

from the mast to the start of the ramp was 1 meter. The height at one end was held fixed while the height at the other end the height was varied from 16 cm to 118 cm (6 to 46 in) in 7 equal steps. This corresponds to angular variation of from 5 to 40 degrees. Slopes with angles of 20, 25, 30, and 35 degrees are shown in Figures 20, 21, 22, and 23 with the modeler coefficient set to B=.90 and a slope threshold set to 30 degrees. Figures 24, 25, 26, and 27 depict the results for the same angles and slope threshold, but with a modeler coefficient of B=.85. Results for other values of B as well as different slope thresholds are given in Appendix Section 7.2.2.

4.3 Two Obstacles Tests

The side to side resolution of the vision system was tested by placing 2 similiar obstacles next to each other at equal distances from the mast. One of these obstacles had a top area of 61 by 61 cm (24 by 24 in) and a fixed height of 36 cm (14 in). The other had a top surface 66 by 61 cm (26 by 24 in) and a height which was adjusted from 0 cm to 40 cm (0 in to 16 in). Both always had their closest edge at a fixed radius of 1 meter from the mast. The purpose of this test was to determine the ability of the system to distinguish between a hazard and a non-hazard right next to it.

When the height of the varying hazard was 10 cm or less, there should be a hazard recorded on both sides of the fixed hazard.

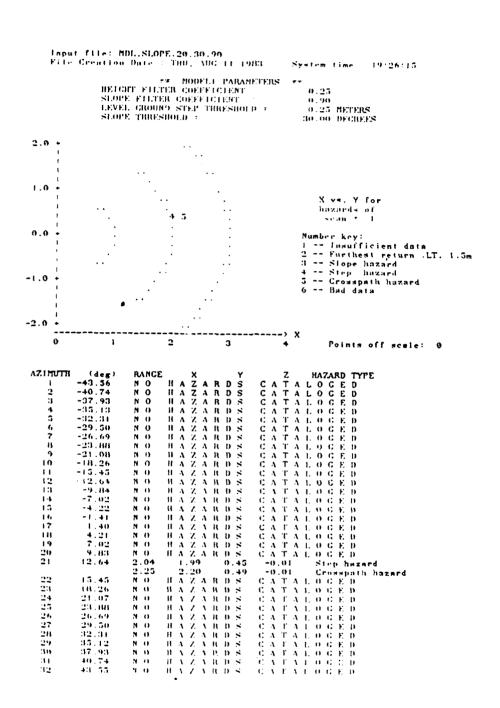


FIGURE 20. 20 DEGREE SLOPE TEST WITH B=.90

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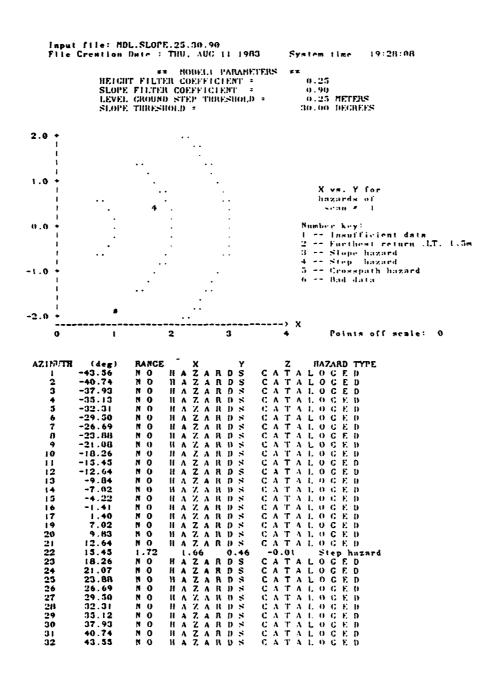


FIGURE 21. 25 DEGREE SLOPE TEST WITH B=.90

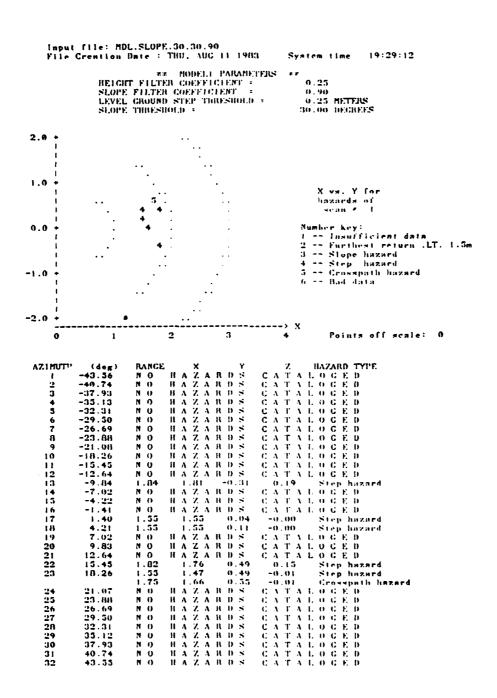


FIGURE 22. 30 DEGREE SLOPE TEST WITH B=.90

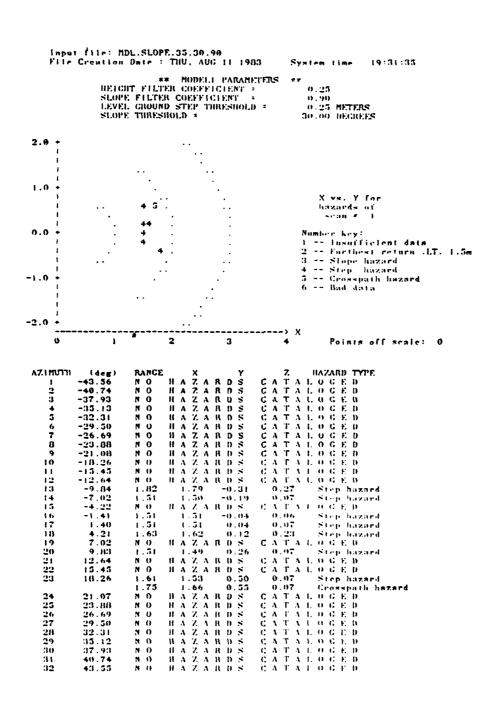


FIGURE 23. 35 DEGREE SLOPE TEST WITH B=.90

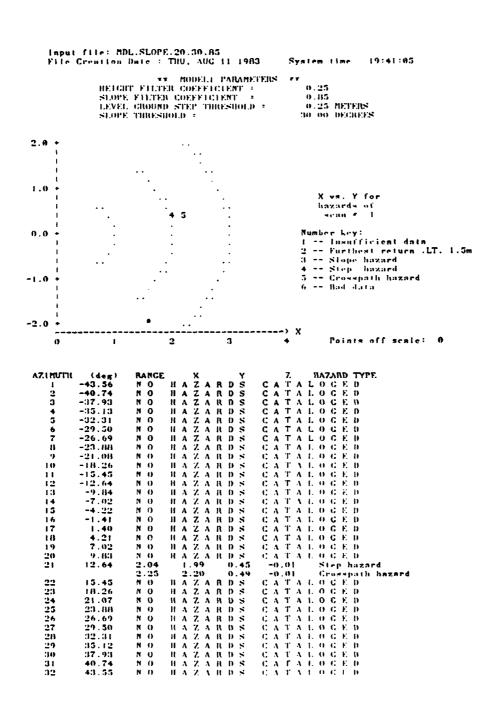


FIGURE 24. 20 DEGREE SLOPE TEST WITH B=.85

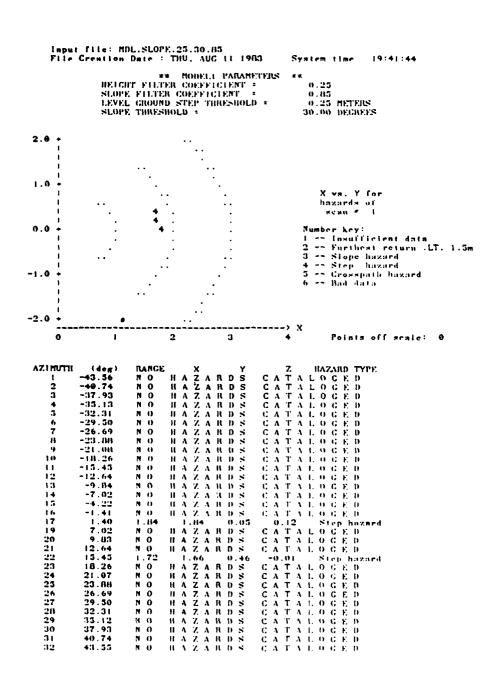


FIGURE 25. 25 DEGREE SLOPE TEST WITH B=.85

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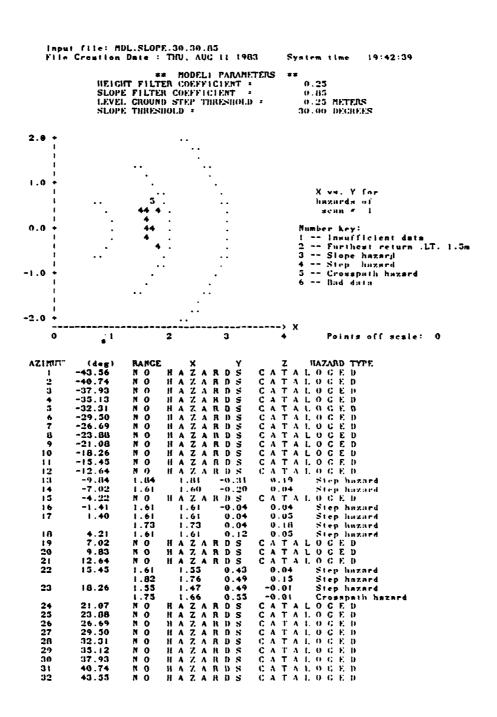


FIGURE 26. 30 DEGREE SLOPE TEST WITH B=.85

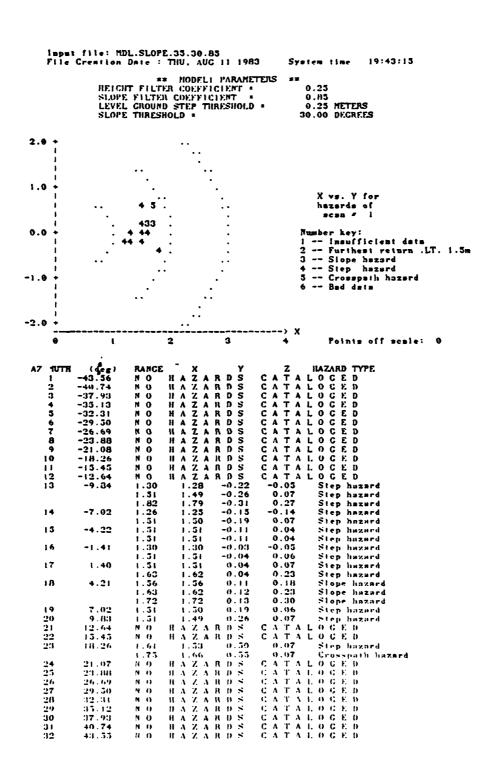


FIGURE 27. 35 DEGREE SLOPE TEST WITH B=.85

when the height of the varying height obstacle was between 15 to 20 cm, there should be only step hazards detected on the non-contacting edge of the fixed obstacle. This is because the height difference between the two obstacles does not constitute a hazard. As soon as the height of the varying obstacle was 20 cm (8 in) or greater than the fixed obstacle, there should be step hazards detected on all sides of the large hazard. Some results are given in Figures 28, 29, and 30. Complete results are given in Appendix Section 7.2.3. As expected, with relatively large differences between the fixed and the unfixed hazard, there was a crosspath hazard catalogued by the modeler. When this difference became less than 20 cm (8 in), the crosspath hazard disappeared. As the varying hazard reached a height of 25 cm (10 in), a step hazard was generated. These were exactly the results that were desired.

4.4 Parallel Obstacles Tests

Another test, which uncovered a modeler deficiency, was a test of the modeler's ability to detect the existance of a hazard when the vehicle cannot pass between 2 step hazards. Two obstacles 31 cm (12 in) wide and 185 cm (72 in) long were placed parallel to each other about 1 meter from the mast. The distance between them was varied from 150 to 100 cm in 10 cm steps (59 to 39 in in 4 in steps). This type of hazard would be encountered if the terrain included a narrow pass that had to be traversed.

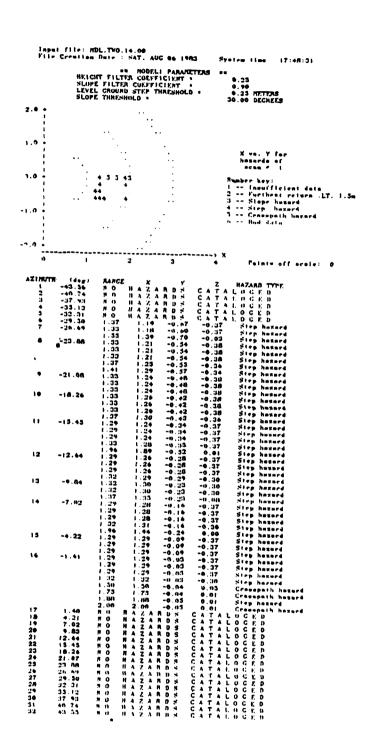


FIGURE 28. TWO OBSTACLES TEST: HEIGHTS AT 0 AND 35 CM

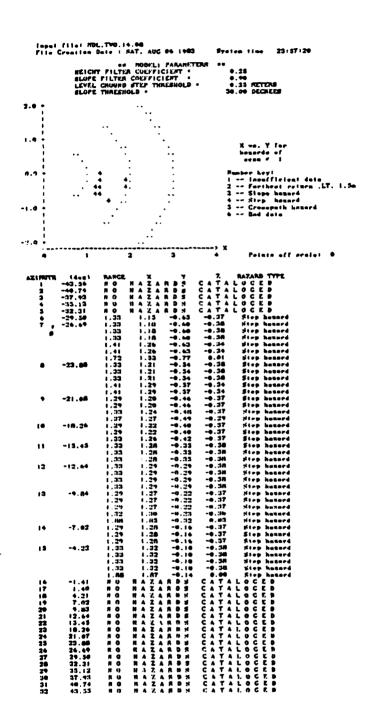


FIGURE 29. TWO OBSTACLES TEST: HEIGHTS AT 20 AND 35 CM

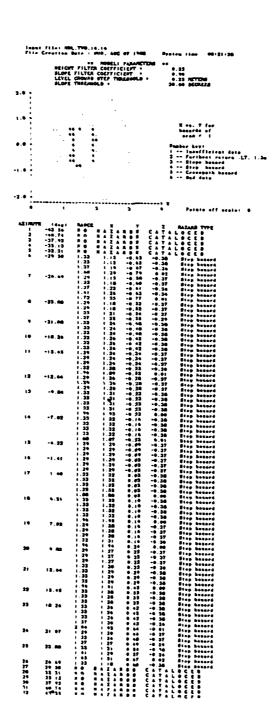


FIGURE 30. TWO OBSTACLES TEST: HEIGHTS AT 35 AND 35 CM

Some of the results are shown in Figure 31 with others found in Appendix Section 7.2.4. Given that the vehicle is 135 cm wide at its widest point, any path created whose width were less than this would have to be declared unsafe. This is something that the modeler does not test for, therefore, a path selection algorithm would have to determine that this situation were a hazard. A path selection algorithm was not used during any of these tests.

4.5 Insufficient Data Returned Tests

To show the modeler's ability to recognize the condition when less than one-fourth of the total number of returns for a particular azimuth are received, a large obstacle was placed in front of the mast which would effectively block most of the returns for several of the azimuths. Similarly, an obstacle was set up to prevent returns from distances greater than 1.5 meters, from the mast, from reaching the detectors. The results of these tests are shown graphically in Figures 32 and 33, and respectively.

4.6 Range Tests

To help determine how well the vision system can determine the range of hazards, ranging tests were performed. A single obstacle 30 by 30 cm was placed at in front of the mast at distances ranging from 40 to 230 cm (16 to 90 in) in 10 cm (4 in) increments. The

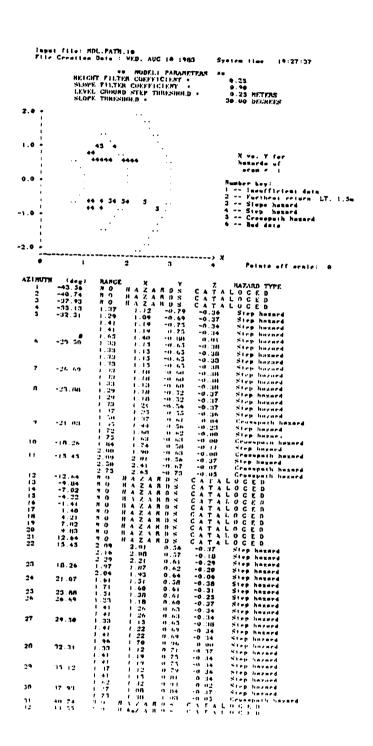


FIGURE 31. PATH OBSTACLE TEST WITH 1 METER SEPARATION

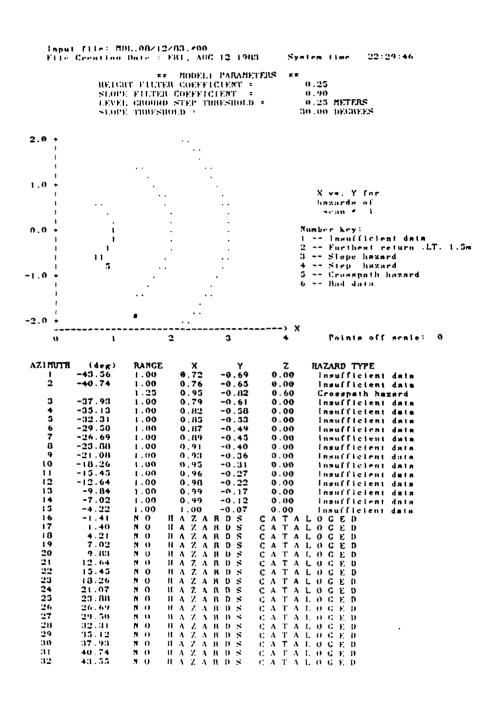


FIGURE 32. INSUFFICIENT DATA TEST

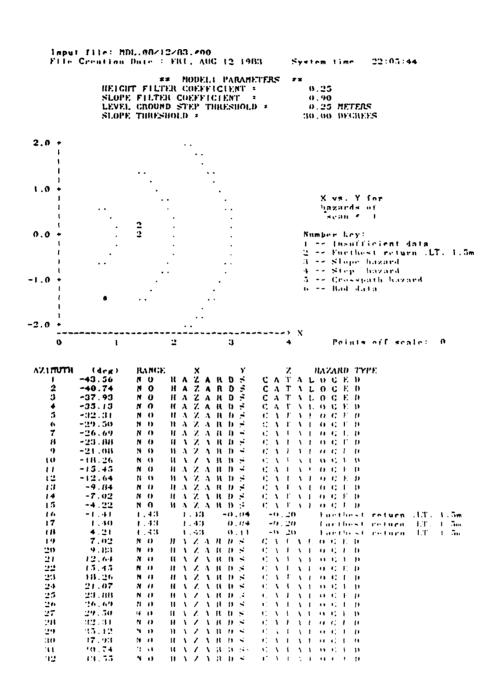


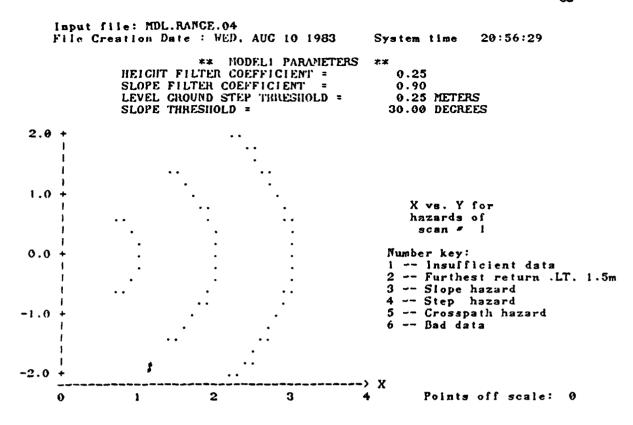
FIGURE 33. NO DATA BEYOND 1.5 METERS TEST

results for 3 of these distances appear in Figures 34, 35, and 36 with complete results in Appendix Section 7.2.5.

The results for the obstacle when very close to the mast included only the falling edges in each case. As can be seen, the calculated range of all of these falling edges was about 25 cm (10 in) further from the mast than their actual occurances. This can probably be attributed to a couple of factors. First, the filtering of the data would tend to slow down the variations and the fact that the calculations are made in increasing range would lend support to this arguement. The other factor is the orientation of the detectors with respect to the hazard. They cannot "see" directly behind the obstacle and only when they receive returns can a definite hazard determination be made.

As the obstacle was placed further and further away, the rising edge was detected. Like the falling edge, it was also detected to be about 25 cm further than it was. This fact lends support to the idea that the filtering has an effect in the determination of a hazard. The fact that the detected positions were always approximately the same distance from being correct suggests that it should be possible to correct for this effect in software. This, unfortunately, was not attempted.

Finally, once the obstacle was at 230 cm (90 in) or greater, it was no longer detected as a hazard. This implies that the useful



NO HAZARDS CATALOGED THIS SCAN

FIGURE 34. 40 CM RANGE TEST

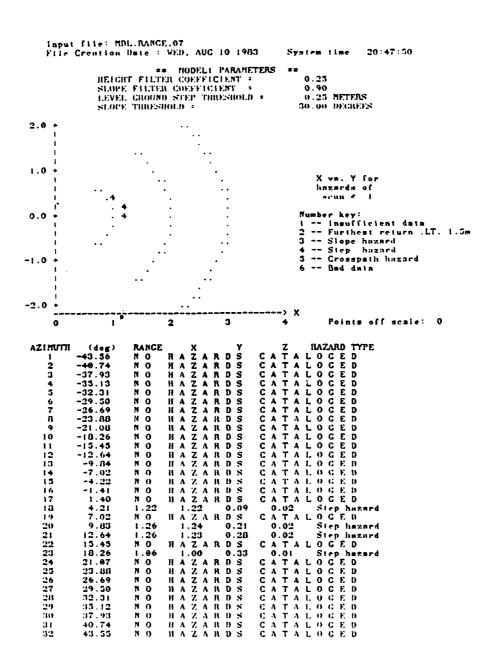
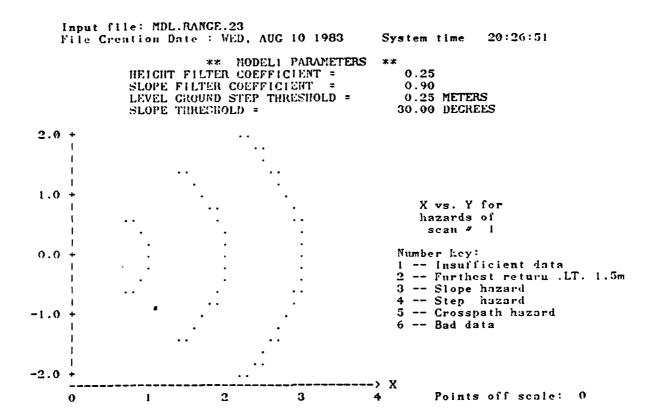


FIGURE 35. 70 CM RANGE TEST



NO HAZARDS CATALOGED THIS SCAN

FIGURE 36. 230 CM RANGE TEST

range for the determination of step hazards was less than this. Also, since the tests were performed with level ground approximately 34 cm (14 in) below what would be vehicle ground, the effective range for the determination of hazards was actually on the order of 200 cm (78 in).

4.7 Holes Tests

All of the above tests ignore a family of obstacles which must be considered: holes. This test consists of creating a hole in an otherwise flat terrain and seeing how well the modeler recognizes the danger. The hole opening was was either a small square 30 cm by 30 cm (12 in by 12 in), a rectangle, 30 cm by 60 cm (12 by 24 in), or a large square, 60 cm by 60 cm (24 in by 24 in). For each of these, the depths were set to 0, 10, 20, 25, 30, and 36 cm (0, 4, 8, 10, 12, 14 in). In each case, the distance from the edge of the hole to the mast was 86 cm (34 in). Results from the hole tests are given in Appendix Section 7.2.6. For the discussion that follows, references to the falling edge are to the edge closest to the mast, and references to the rising edge are to the edge furthest from the mast.

As can be seen in Figure 37, with the small hole a hazard was not detected until the hole was 30 cm deep (which was 5 cm greater than the step hazard threshold). The hazard detected with this depth was only at one point in the hole even though there were actually

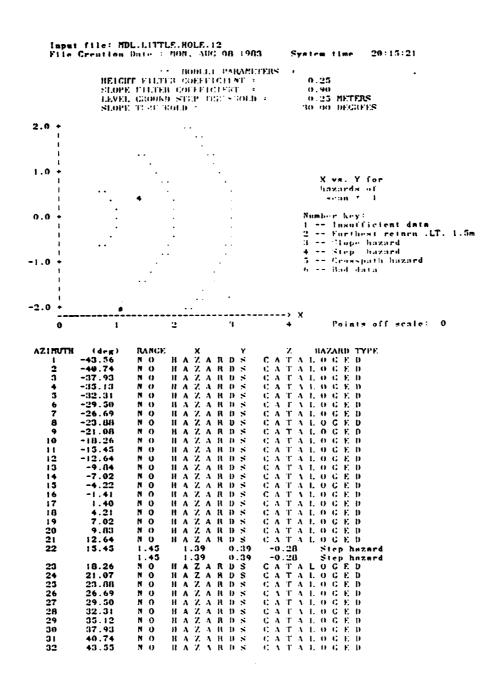


FIGURE 37. SMALL SQUARE HOLE WITH 30 CM DEPTH TEST

hazards at both the falling and rising edges of the hole. In the case of a 36 cm (14 in) deep hole (see Figure 38), both the falling and rising edges of the hole were detected. Because of the orientation of the detector array, falling edge of the hole was detected several centimeters into the hole. The fact that the hole was not seen until it was 30 cm (12 in) deep brings out an important problem; that a wheel could quite easily get stuck in a hole which went unreported by the vision system. Setting a lower step threshold value, at say 20 centimeters (8 inches), would cure the problem, but would cause the vehicle to be more cautious than necessary most of the time.

For the rectangular hole, a step hazard was first recognized at a hole depth of 25 cm (10 in) (Figure 39). Unfortunately, only the rising edge of the hole was recognized as a hazard. At a depth of 30 cm (12 in) as in Figure 40, the falling edge step was recognized at about the center of the hole. As with the little square hole, this was due to the detector array position. When the hole depth was increased to 36 cm (14 in) (Figure 41), the position of the detected falling edge of the hole was moved closer to its actual position.

The test results using a large hole were quite interesting. For one thing (see Figure 42), a hole 20 cm deep (8 in) produced a hazard at the rising edge of the hole even though the step threshold was 25 cm (10 in). The reason for this is not readily apparent, but it may be due to reflections from the back of the hole hitting the bottom and then reflecting back at the detector array (see Figure 43.

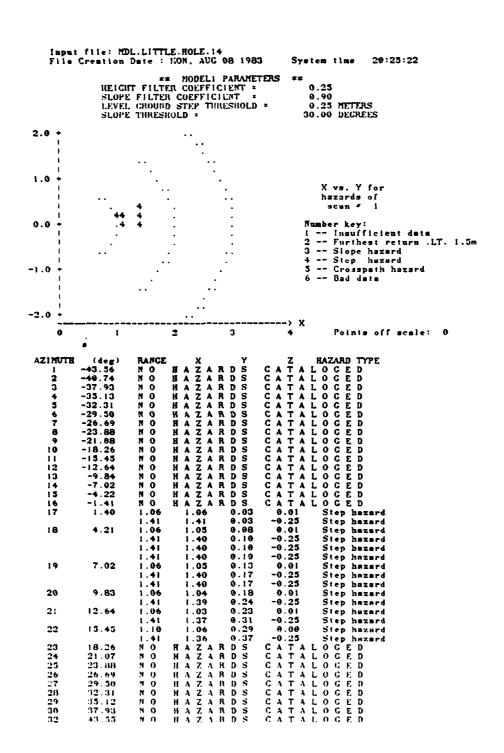


FIGURE 38. SMALL SQUARE HOLE WITH 36 CM DEPTH TEST

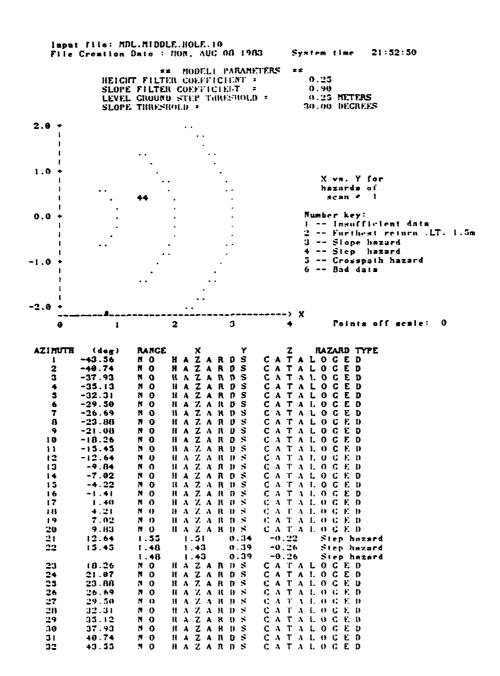


FIGURE 39. RECTANGULAR HOLE WITH 25 CM DEPTH TEST

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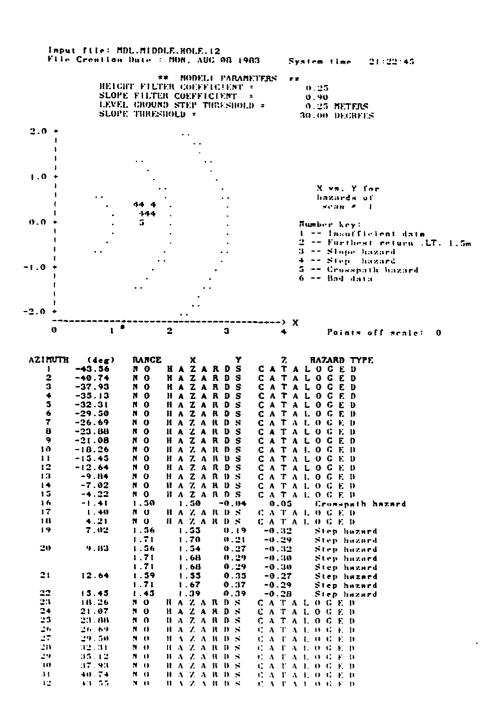


FIGURE 40. RECTANGULAR HOLE WITH 30 CM DEPTH TEST



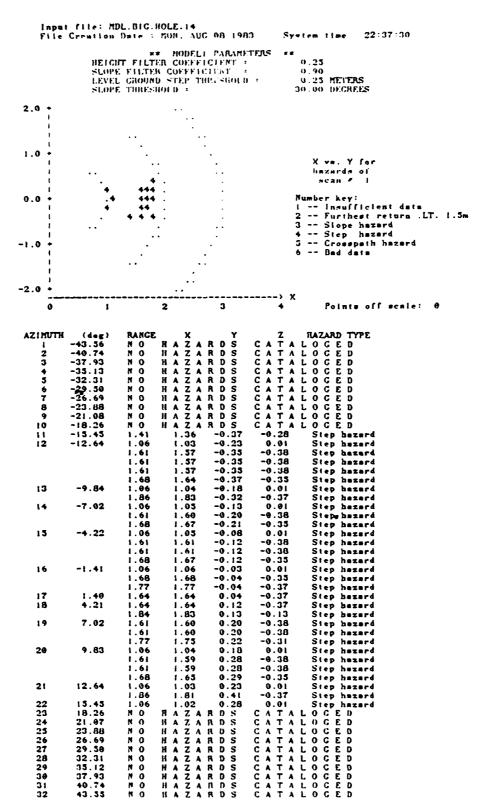


FIGURE 41. RECTANGULAR HOLE WITH 36 CM DEPTH TEST

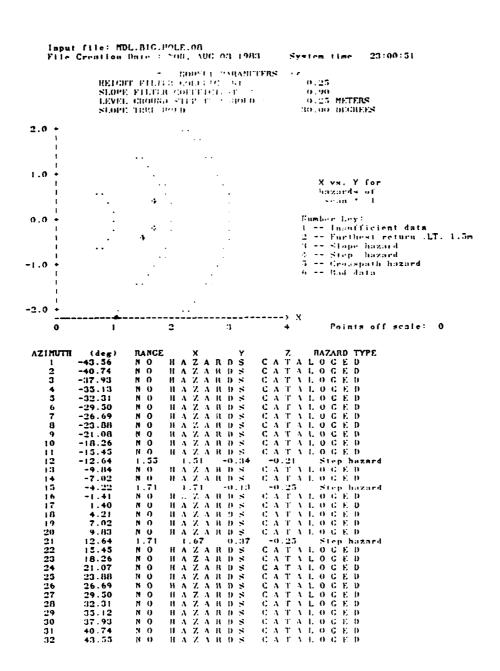


FIGURE 42. LARGE SQUARE HOLE WITH 20 CM DEPTH TEST

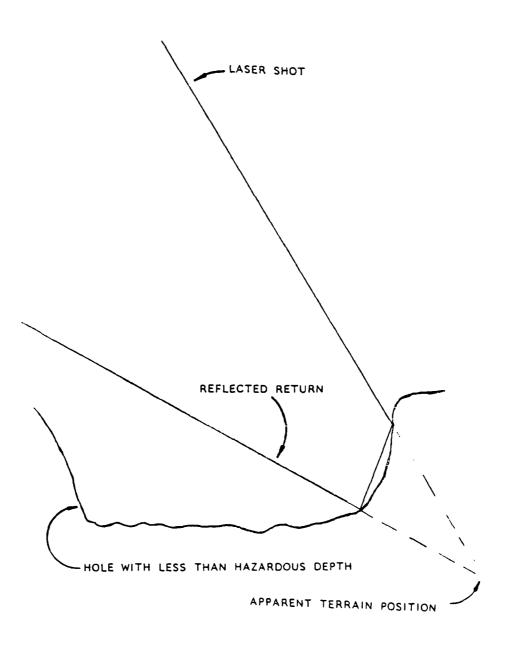


FIGURE 43. FALSE RETURN DUE TO REFLECTION

It may also be due to one of the malfunctioning detectors mentioned above. The falling edge was detected when the depth was increased to 30 cm (12 in) shown in Figure 44. As the depth became deeper, the detected distance to the falling edge became closer to its actual position.

When the results obtained with the large hole are placed next to those obtained for the small hole, a potential problem becomes apparent. Specifically, in order to detect a hazard when the small area top hole was present, the depth had to be 5 cm (2 in) deeper than the threshold level. On the other hand, when the large area top hole was present, a hazard was first detected when the depth was 5 cm (2 in) less than the threshold level although this may have been due to conditions which would not have been present if all detectors were working properly. This implies that for the worst case to be threshold accounted for, the would have to Unfortunately, this could create a very conservative system if small holes were rarely the hazard sources. Also, since this type of problem did not exist for positive step hazards, there would be several false alarms if a majority of the obstacles present were positive step. One way to alleviate this problem is to have separate threshold levels for positive and negative steps. To date, however, no testing has been done using that criterion.

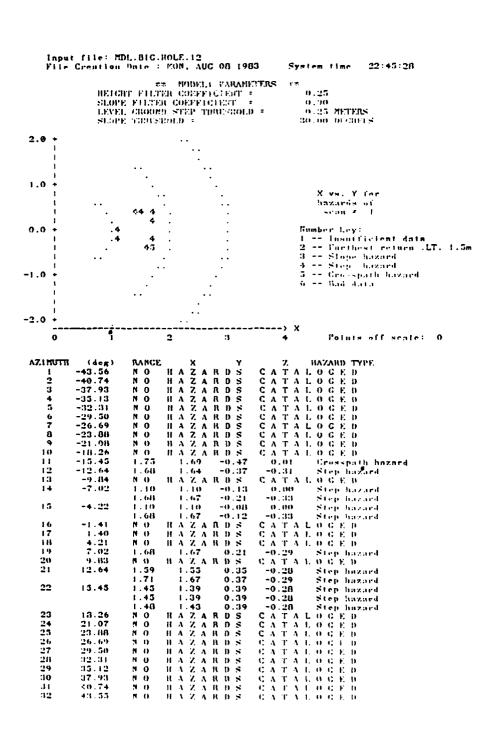


FIGURE 44. LARGE SQUARE HOLE WITH 30 CM DEPTH TEST

PART 5

CONCLUSIONS

As the results of the tests have shown, the ML/MD vision scanning system has the potential to do an excellent job of supplying hazard data for an autonomous roving vehicle. All height data obtained were within a few centimeters of the actual heights involved. Step hazards were detected without any problems. Cross-path analysis showed that a cross-step hazard is detected when present. The side to side resolution proved to be quite good as shown in the cross-path testing. The obstacle disappeared and a step hazard appeared at the appropriate heights. Also, although some hazards are not cataloged, such as cross-slope hazards, the data obtained by the mast certainly provided enough information for the presence of additional hazards to be derived.

Of course, there are problems. The first of these is that a hazard is not flagged when two obstacles were placed at a width less than the vehicle width.

This problem is not considered an impossible stumbling block since the path selection algorithm could be set up to recognize this as a hazard and the appropriate action could then be taken; specifically, the terrain could be avoided.

Another problem which became obvious was that the ranges determined during the range tests proved to be different from the actual ranges involved. Fortunately, the differences were about the same for both rising and falling edges for all detectable range values. Injecting an offset into the range values obtained would alleviate this problem. Since the values varied by about 5 cm (2 in), it seems that it would be necessary to always assume that a hazard occupies space outside of its detected edges by this amount. This could also be taken care of by the path selection algorithm.

Cross-path hazards is a problem which was not fully explored here but which must be given greater attention in the future. The cross-path results obtained here involved cross-steps between adjacent azimuths. Unfortunately, the ability of the modeler to detect cross-slopes is very limited. This is because the cross-path analysis is performed between adjacent azimuths and a cross-slope hazard would generally occur amongst azimuths much more than 1 apart. Fortunately, the data obtained contains enough information for a proper analysis to be done.

A problem which showed itself during the slope hazard tests was the inability of the modeler to reliably detect a slope hazard. Looking at the data reveals that all of the information is available to perform reasonably accurate slope hazard analysis, but the results which the modeler produced did not reflect this. Specifically, the software lowpass filtering which the data experiences, discussed in Section 3.5.4, all but destroys the data. If the slope filter coefficient is too high, most of the slope information is lost. However, if the coefficient is just slightly lower, almost any terrain produces a slope hazard. What the problem seems to be is that since slopes are determined from information obtained from adjacent valid elevations, the actual envelope of the terrain is distorted. In fact, there is never enough information when a slope starts gradually or when the slope does not occupy the entire view in front of the mast for a detectable slope hazard to materialize. What is proposed to correct this is to fit the data obtained to straight lines, each created by doing a least squares fit of the data on at least one-fourth of the data obtained for any particular azimuth.

In terms of the ML/MD systems's useful range resolution, another comment must be made. In order for a hazard to be detected, enough data for the terrain surrounding that hazard must be obtained. The vision system's ability to detect hazards greater than 2 meters in range is non-existent, at least on what the vehicle would consider level ground. This is because the most distant laser shot is

fired at a point approximately 3 meters away from the mast. This, coupled with the facts that the effective detector height is only 1 meter and at a distance of 2 meters the detectors cannot see anything above about 30 cm over the ground plane precludes the hazard detection ability beyond this. Of course, holes could be detected at a somewhat further distance, but the concern should be with worst case, not best.

All of these problems are not really that bad and for the most part are correctable through changes and additions in the software. The slope hazard detection algorithm will almost certainly have to be looked at and corrections in the modeler is almost inevitable. The problem with detecting cross-slope cross-path hazards is currently being looked at and will probably be corrected within the modeler. The path selection routine could certainly correct for the problem with narrow passages as well as considering an object as larger than it actually is. In terms of the limited range which the vision system possesses, this could be corrected without loss of resolution by increasing the number of detectors and the number of laser shots fired per azimuth. Of course, this would mean an increased load on the interpretation software, but given the advances in computer and microprocessor technology, this would not be a problem.

In conclusion, the data obtained by the Multi-Laser/Multi-Detector mast electronics provides useful information to help in the determination of the hazards on a given terrain. Also,

with just a few changes and additions to the software, a fast but nominally performing, short-range hazard detection system could be made completely functional. Finally, with some additional changes to hardware, the range of this vision system could also be increased.

PART 6

REFERENCES

- Cipolle, D., "A High Speed Telemetry Data Link for an Autonomous Roving Vehicle." Rensselaer Polytechnic Institute Technical Report MP-72, Troy, N.Y., August 1980.
- Clement, T., "The New Telemetry Card for the Mars Rover."
 Rensselaer Polytechnic Institute, Troy, N.Y., May 1982.
- Craig, J. and Yerazunas, S., "Elevation Scanning Laser Multi-Sensor Hazard Detection System Controller and Mirror/Mast Speed Control Components." Rensselaer Polytechnic Institute Technical Report MP-59, Troy, N.Y., August 1978.
- 4. Doig, G., "Electronic and Software Subsystems for an Autonomous Roving Vehicle." Rensselaer Polytechnic Institute Technical Report MP-76, Troy, N.Y., October 1978.

- Donaldson, J., "Laser Optical Appraisal and Design of a PRIME/Rover Interface." Rensselaer Polytechnic Institute Technical Report MP-68, Troy, N.Y., December 1979.
- Gisser, D., Frederick, D., and Yerazunas, S., "Analysis and Design of a Capsule Landing System and Surface Vehicle Control System for Mars Exploration." Rensselaer Polytechnic Institute Technical Report MP-54, Troy, N.Y., June 30, 1977.
- 7. Kennedy, W., "Control Electronics for a Multi-Laser/Multi-Detector Scanning System." Rensselaer Polytechnic Institute Technical Report MP-73, Troy, N.Y., August 1980.
- 8. Markinson, S., "Software and Electronic Subsystems for the Mars Roving Vehicle." Rensselaer Polytechnic Institute Technical Report MP-79, Troy, N.Y., May 1982.
- 9. McNellis, T., "Evaluation of a Laser Triangulation Ranging
 System for Mobile Robots." Rensselaer Polytechnic Institute
 Technical Report MP-80, Troy, N.Y., August 1982.
- 10. Messing, B., "Interpretation of Laser/Multi-Sensor Data for Short Range Terrain Modeling and Hazard Detection." Rensselaer Polytechnic Institute Technical Report MP-75,

Troy, N.Y., August 1980.

- 11. Odenthal, J., "A Receiver for Laser Triangulation Rangefinder."

 Rensselaer Polytechnic Institute Technical Report MP-74,

 Troy, N.Y., August 1980.
- 12. Potemsil, M., "T\$ROVR, a Primos I/O Driver for the Rover Vehicle." Rensselaer Polytechnic Institute, Troy, N.Y., July, 1980
- 13. PRIME Computer, Inc., <u>Reference Guide</u>, <u>Primos Commands</u>.

 First Printing, PRIME Computer, Inc., July 1978.
- 14. Ryder, A., "Dynamic Evaluation of RPI's 0.4 Scale Unmanned Martian Roving Vehicle Model." Rensselaer Polytechnic Institute Technical Report MP-38, Troy, N.Y., December 1973.
- 15. Yerazunis, Trojani, and S., "Procedures for the Interpretation Elevation and use of Scanning Laser/Multi-Sensor Data for Short Range Hazard Detection and Avoidance for an Autonomous Planetary Rover." Rensselaer Polytechnic Institute Technical Report MP-57, Troy, N.Y., July 1978.

PART 7

APPENDIX

7.1	TELEM6.TC - Microprocessor Telemetry Program	86
7.2	Tests	96
	7.2.1 Single Step Test Results	97
	7.2.2 Slope Test Results	107
	7.2.3 Two Steps Test Results	175
	7.2.4 Parallel Obstacles Test Results	184
	7.2.5 Range Test Results	191
	7.2 6 Hole Tests Results	212

7.1 TELEM6.TC - Microprocessor Telemetry Program

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MOTOROLA M6B00 CROSS ASSEMBLER, RELEASE 1.2

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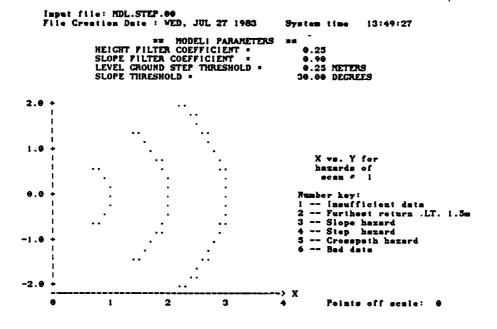
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7.2 Tests

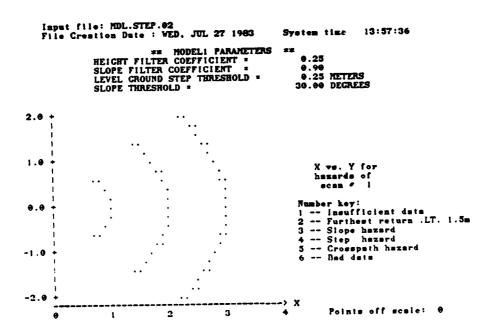
7.2.1 Single Step Test Results

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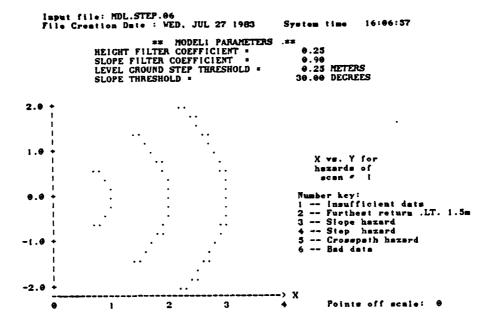
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7.2.1.9	50 cm Step	106



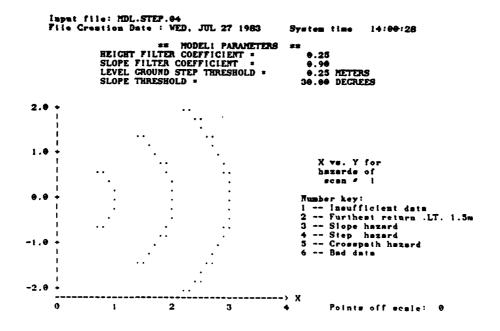
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NO HAZARDS CATALOGED THIS SCAN

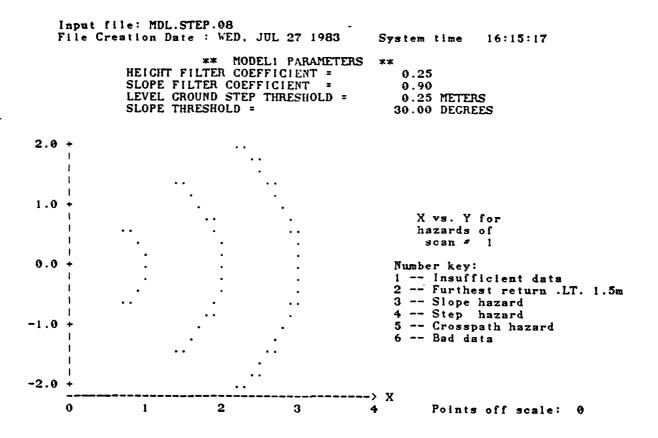


NO BAZARDS CATALOGED THIS SCAN



NO HAZARDS CATALOGED THIS SCAN

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NO HAZARDS CATALOGED THIS SCAN

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Input file: MDL.STEP.10
            File Creation Date: WED, JUL 27 1983
                                                                                                                                                  System time
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                                                                                 MODELI PARAMETERS
                                         HEIGHT FILTER COEFFICIENT =
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                                         SLOPE FILTER COEFFICIENT
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                                         LEVEL GROUND STEP THRESHOLD =
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                                         SLOPE THRESHOLD =
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File Creation Date : WED, JUL 27 1983
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HEIGHT FILTER COEFFICIENT =
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Imput file: MDL.STEP.12

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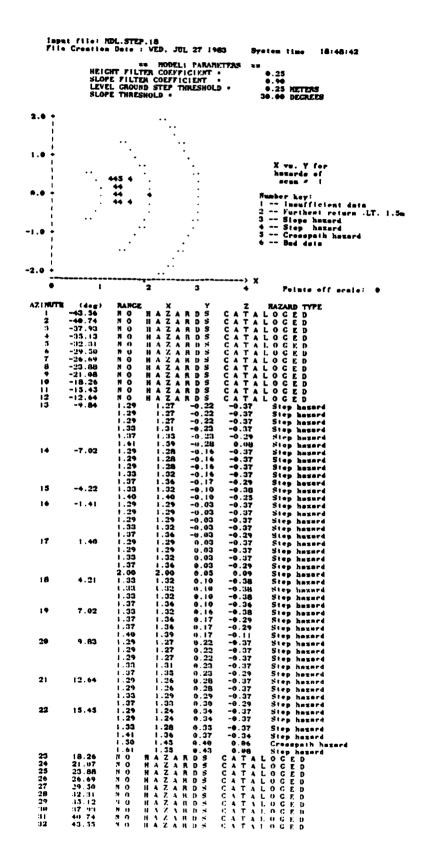
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Imput file: MDL.STEP.16
File Crestion Date: WED, JUL 27 1983
                                                                                                       ** HODELI PARAMETERS
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个对此的对象的数据**可**好分子的理解,可是否是通用的人。因为这种特殊的,但是是是一种,他们们的人,他们们是是一种的人,他们们们是一种的人,但是是一种的人,但是是一种



2000年

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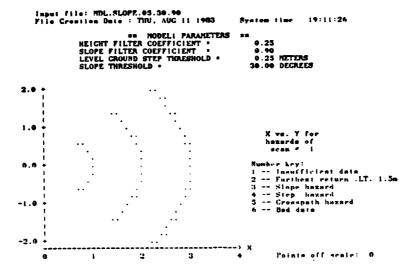
7.2.2 Slope Test Results

7.2.2.1	$B^1=0.90;$	Slope	Threshold ² =30	• • • • • • • •	• • • • • • • • •	 108
7.2.2.2	B=0.85;	Slope	Threshold=30	• • • • • • • • •		 116
7.2.2.3	B=0.80;	Slope	Threshold=30	• • • • • • • • •		 124
7.2.2.4	B=0.75;	Slope	Threshold=30			 132
7.2.2.5	B=0.90;	Slope	Threshold=25	• • • • • • • • •		 141
7.2.2.6	B=0.85;	Slope	Threshold=25	• • • • • • • •	• • • • • • • • • • • • • • • • • • • •	 149
7.2.2.7	B=0.80;	Slope	Threshold=25	• • • • • • • • •		 157
7 2 2 8	B=0.75	Slope	Threshold=25			166

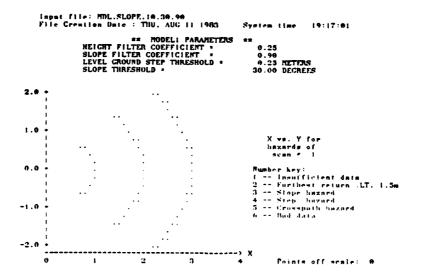
¹Slope Coefficient ²Slope Threshold in degrees

7.2.2.1 B=0.90; Slope Threshold=30

7.2.2.1.1	5 Degree Slope	 . 109
7.2.2.1.1	10 Degree Slope	 . 109
7.2.2.1.2	15 Degree Slope	 .110
7.2.2.1.3	20 Degree Slope	 .111
7.2.2.1.4	25 Degree Slope	 . 112
7.2.2.1.5	30 Degree Slope	 . 113
7.2.2.1.6	35 Degree Slope	 . 114
7 2 2 1 7	10 Dogree Slope	115



NO RAZARDS CATALOGED THIS SCAN



NO HAZARDS CATALOGED THIS SCAR

SECOND REFERENCE BOSTONS DEPOSES

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Input file: MDL.SLOPE.15.30.90
    File Creation Date: THU, AUG 11 1983
                                               System time
                                                              19:23:55
                        ** MODELI PARAMETERS
             HEIGHT FILTER COEFFICIENT =
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             SLOPE FILTER COEFFICIENT
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                                                  0.90
                                                  0.25 METERS
             LEVEL CROUND STEP THRESHOLD =
             SLOPE THRESHOLD =
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                                                    hazards of
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                                                 1 -- insufficient data
                                                   -- Furthest return .LT. 1.5m
                                                 3 -- Slope hazard
                                                   -- Step hazard
                                                   -- Crosspath hazard
-1.0
                                                   -- Bad data
-2.0
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   8
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         -18.26
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                                          -0.04
                                                   Crosspath hazard
                         HAZARDS
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                  N O
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                                             TALOGED
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         18.26
                  N O
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C A T A L O G E D
  24
         21.07
                  N O
                        HAZARDS
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                  N O
                        HAZARDS
                                         CATALOGED
  26
         26.69
                  NO
                        HAZARDS
                                         CATALOGED
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                  N O
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                                         CAT
                                               ALOCED
  28
         32.31
                  NO
                        HAZARDS
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                        HAZARDS
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                        HAZARDS
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  31
         40.74
                  N O
                                         CATALOGED
         43.55
                  N O
                                         CATALOGED
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Input file: MDL.SLOPE.20.30.90
           File Creation Date: THU, AUG 11 1983
                                                                                                                                                                            19:26:15
                                                                                                                                   System time
                                                                           MODELI PARAMETERS
                                     HEIGHT FILTER COEFFICIENT =
                                                                                                                                            0.25
                                     SLOPE FILTER COEFFICIENT
                                                                                                                                            0.90
                                     LEVEL CROUND STEP THRESHOLD =
                                                                                                                                            0.25 METERS
                                                                                                                                         30.00 DECREES
                                     SLOPE THRESHOLD =
  1.0
                                                                                                                                                 X vs. Y for
                                                                                                                                                  hazards of
                                                                                                                                                     scan #
  0.0
                                                                                                                                         Number key:
                                                                                                                                               -- Insufficient data
                                                                                                                                                     Furthest return .LT. 1.5m
                                                                                                                                              -- Slope hazard
                                                                                                                                              -- Step hazard
-1.0
                                                                                                                                              -- Crosspath hazard
                                                                                                                                                      Bad data
-2.0
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                                                                                                   3
                                                                                                                                4
                                          1
                                                                                                                                                       Points off scale:
             0
                                                                                HAZARD TYPE
  AZIMUTH
                               (deg)
                                                     RANCE
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                          -43.56
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0 C E D
        18
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                              7.02
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H A
        19
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                               9.83
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                                                                                                                                                 Step hazard
        21
                            12.64
                                                     2.25
N 0
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                                                                                                   0.49
                                                                                                                       -0.01
                                                                                                                                                 Crosspath hazard
                                                                                Z A R D S
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TALOGED
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        23
                            18.26
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                                                                                                                    CA
                                                                                                                   C A T A L O G E D C A T A L O G E D
                                                                      H A
                            21.07
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        24
                                                     N
        25
                            23.88
                                                     N
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                                                                      H A
        26
                            26.69
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                                                                      H A
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                                                                                                                        ATALOGED
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C A T A L O G E D
                                                     N O
                                                                      H A
        27
                            29.50
        28
                            32.31
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                                                                                 ZARDS
                                                                                                                    CATALOGED
        29
                            35.12
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C A T A L O G
                                                                                                                                                          E D
                                                                      HAZARDS
                                                     N O
        30
                            37.93
                                                                     HAZARDS
HAZARDS
                            40.74
                                                     NO
        31
                                                                                                                   CATALOGED
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43.55

N O

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Input file: MDL.SLOPE.25.30.90
     File Creation Date: TMV, AUG 11 1983
                                                                  System time
                                                                                      19:28:08
                                 ** MODELI PARAMETERS
                  HEIGHT FILTER COEFFICIENT =
                                                                      0.25
                  SLOPE FILTER COEFFICIENT
                                                                      0.90
                                                                    0.25 METERS
30.00 DECREES
                  LEVEL CROUND STEP THRESHOLD =
                  SLOPE THRESHOLD =
 1.0
                                                                        X vs. Y for
                                                                        hazards of
                                                                          scan 🚜
 0.0
                                                                    Number key:
                                                                           Insufficient data
                                                                           Furthest return .LT. 1.5m
                                                                       -- Slope hazard
                                                                           Step hazard
                                                                           Crosspath hazard
                                                                       -- Bad data
-2.0
      0
                     1
                                   2
                                                 3
                                                                           Points off scale:
                                  AZIMUTH
               (deg)
                           RANCE
                                                                       RAZARD TYPE
                                                                     LOGE
LOGE
LOGE
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             -43.56
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                           N O
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             -40.74
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            -37.93
                           N O
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                           N O
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            -23.88
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            -12.64
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             15.45
                          1.72
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             18.26
                          N O
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25
             21.07
23.88
                          N O
                          N
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             26.69
                             0
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                          N O
             32.31
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             37.93
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   31
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43.55

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Input file: MDL.SLOPE.30.30.90
   File Creation Date: THU, AUC 11 1983
                                             System time
                                                           19:29:12
                      ** MODELI PARAMETERS
            HEIGHT FILTER COEFFICIENT =
                                                0.25
            SLOPE FILTER COEFFICIENT
                                                0.90
            LEVEL CROUND STEP THRESHOLD =
                                                0.25 METERS
                                               30.00 DECREES
            SLOPE THRESHOLD =
1.0
                                                  X vs. Y for
                                                  hazards of
                                                   scan *
                                               Number key:
0.0
                                               1 -- Insufficient data
                                                -- Furthest return .LT. 1.5m
                                               3 -- Slope hazard
                                               4 -- Step hazard
                                               5 -- Crosspath hazard
-1.0
                                                -- Bad data
-2.0
                                  3
                                                    Points off scale:
                        2
              1
    0
                                                 MAZARD TYPE
 AZIMUTT
          (deg)
                  RANCE
                            X
                        TALOGED
TALOGED
                                        CA
        -43.56
                  N O
                                            T A
T A
   2
         -40.74
                  N
                    0
                  N
                                               L O G E D
L O G E D
                                        CA
        -37.93
   3
                    0
                                        CA
                                            T A
         -35.13
   5
        -32.31
                  N
                    0
                                        CA
                                            T
                                              A
                                                LOC
                                        CATALOGED
        -29.50
                  N
                    0
   6
                                        CATALOGED
   7
         -26.69
                    0
                                        C A T A L O G E D
C A T A L O G E D
        -23.88
                  N
                    0
   8
   9
        -21.08
                  N
                    0
                        II A Z A R D S
H A Z A R D S
II A Z A R D S
                                        CATALOGED
  10
        -18.26
                  N O
                                        C A T A L O G E D
C A T A L O G E D
                  N
   11
        -15.45
                    0
         -12.64
                  N O
  12
         -9.84
                          1.81
                                          0.19
                                                  Step hazard
                                -0.31
  13
                  1.84
                                        CATALOGED
                        HAZARDS
  14
         -7.02
                  N O
                        HAZARDS
HAZARDS
                                        CATALOGED
                  N O
  15
         -4.22
                                        CATALOGED
  16
         -1.41
                  N O
                                         -0.00
                                                  Step hazard
  17
          1.40
                  1.55
                          1.55
                                  0.04
                                  0.11
                                         -0.00
                                                  Step hazard
          4.21
                  1.55
                          1.55
  18
                        HAZARDS
HAZARDS
                                        CATALOGED
  19
          7.02
                  N O
                                        CATALOGED
  20
          9.83
                  N O
                                        CATALOGED
                        HAZARDS
  21
         12.64
                  N O
                                          0.15
  22
         15.45
                  1.82
                          1.76
                                  0.49
                                                  Step hazard
                          1.47
                                         -0.01
                                                  Step hazard
         18.26
                  1.55
                                  0.49
  23
                  1.75
                          1.66
                                  0.55
                                         -0.01
                                                  Crosspath hazard
                                        CA
                                           TALOGED
  24
                  N O
                        HAZARDS
         21.07
                        HAZARDS
                                        CATALOGED
  25
         23.88
                  N O
                                        CATALOCED
  26
         26.69
                  N O
                        HAZARDS
  27
         29.50
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                        HAZARDS
                                        CA
                                           TALOGED
                                        CATALOGED
  28
         32.31
                        HAZARDS
                  и о
                                        CATALOGED
  29
         35.12
                  N O
                        HAZARDS
                        HAZARDS
HAZARDS
                                        CATALOGED
  30
         37.93
                  N O
                                        CATALOGED
  31
         40.74
                  N O
                                        CATALOGED
         43.55
                        HAZARDS
                  N O
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这个个人们是大大大大利用,也是人人人人人,是一个人,是一个人,是一个人,是一个人,是一个人,是一个人,他们是一个人,也不是一个人,是一个人,他们是一个人,他们就

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Input file: MDL.SLOPE.35.30.90
    File Creation Date: THU, AUG 11 1983
                                                  System time
                                                                  19:31:35
                         ** MODELI PARAMETERS
              HEIGHT FILTER COEFFICIENT =
                                                     0.25
             SLOPE FILTER COEFFICIENT = LEVEL CROUND STEP THRESHOLD =
                                                     0.90
                                                     0.25 METERS
              SLOPE THRESHOLD =
                                                    30.00 DECREES
 2.0
 1.0
                                                       X vs. Y for
                                                        hazards of
                                                         scan 🍎
0.0
                                                    Number key:
                                                      -- Insufficient data
                                                      -- Furthest return .LT. 1.5m
                                                    3 -- Slope hazard
                                                      -- Step hazard
                                                      -- Crosspath hazard
-1.0
                                                      -- Bad data
-2.0
                           2
                                      3
                                                 4
                                                         Points off scale:
                1
                          AZIMUTTI
           (deg)
                    RANCE
                                                      HAZARD TYPE
         -43.56
                                                TALOGED
                                            CA
                    N O
                                            C A
                                                TALO
TALO
                                                         C E D
         -40.74
                    N O
    3
                    N O
         -37.93
                                                     r o c
                    N O
         -35.13
                                            CCC
                                                T A
         -32.31
                    N O
                                                           E D
                                                  A L O
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         -29.50
                    N O
    6
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         -26.69
                    N O
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H A Z A R D S
H A Z A R D S
H A Z A R D S
H A Z A R D S
                                            CA
                                                TALO
    8
         -23.88
                    N O
                                            C A T A L O G E D
C A T A L O G E D
                    N O
         -21.08
    9
   10
         -18.26
                    N O
                    N O
                                            C A T A L O G E D
C A T A L O G E D
         -15.45
   11
         -12.64
          -9.84
                    1.82
                             1.79
                                    -0.31
                                              0.27
                                                       Step hazard
   13
          -7.02
                                     -0.19
                                                       Step hazard
                    1.51
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   14
                                            CATALOGED
   15
          -4.22
                    N O
                           HAZARDS
                                     -0.04
                                              0.06
                                                       Step hazard
          -1.41
                    1.51
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   16
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                                                       Step hazard
   17
           1.40
                    1.51
                             1.51
           4.21
                    1.63
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                                                       Step hazard
   18
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                           HAZARDS
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   20
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   22
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          15.45
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   23
          18.26
                    1.61
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                                                       Step hazard
                                              0.07
                                                       Crosspath hazard
                    1.75
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                                            CATALOGED
                           HAZARDS
          21.07
                    N O
                          HAZARDS
HAZARDS
   25
          23.88
                    N O
                                              Α
                                                TALOGED
  26
27
                                            CATALOGED
                    N O
          26.69
          29.50
                    N O
                           HAZARDS
                                            CATALOGED
          32.31
                          HAZARDS
                                            C A
                                                TALOGED
   28
                    N O
                          HAZARDS
                                                TALOGED
                    N O
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   29
          35.12
   30
                          HAZARDS
                                            CATALOGED
          37.93
                    N O
                          HAZARDS
HAZARDS
                                            C A T A L O G E C A T A L O G E
                                                  ALOGED
                    N O
          40.74
   31
   32
          43.55
                    N O
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Input file: MDL.SLOPE.40.30.90
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                                                                                    19:33:39
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                  SLOPE FILTER COEFFICIENT
                                                                    0.90
                  LEVEL CROUND STEP THRESHOLD =
                                                                    0.25 METERS
                  SLOPE THRESHOLD =
                                                                   30.00 DECREES
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                                                                       X vs. Y for
                                                                       hazards of
                                                                        scan "
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                                                                  Number key:
                                                                     -- Insufficient data
                                                                     -- Furthest return .LT. 1.5m
                                                                    -- Slope hazard
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                                                                        Crosspath hazard
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-2.0
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                                                                         Points off scale:
            (deg)
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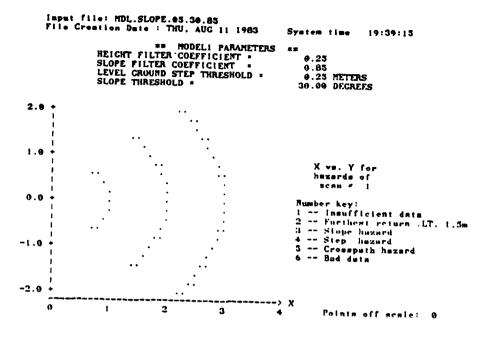
TALOGED

32

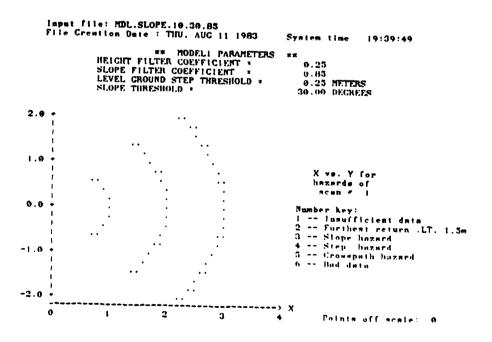
43.55

7.2.2.2 <u>B=0.85;</u> <u>Slope</u> <u>Threshold=30</u>

7.2.2.2.1	5 Degree Slope	117
7.2.2.2.1	10 Degree Slope	:117
7.2.2.2.2	15 Degree Slope	
7.2.2.2.3	20 Degree Slope	
7.2.2.2.4	25 Degree Slope	12 0
7.2.2.2.5	30 Degree Slope	121
7.2.2.2.6	35 Degree Slope	122
7.2.2.2.7	40 Degree Slope	



NO HAZARDS CATALOGED THIS SCAN



NO RAZARDS CATALOCED THIS SCAN

CONTRACTOR SERVING SERVING BOOK SERVING SERVIN

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Input file: MDL.SLOPE.15.30.85
            File Creation Date: TRU, AUG 11 1983
                                                                                                                                                   System time
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                                                                          ** MODELI PARAMETERS
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                                         SLOPE FILTER COEFFICIENT
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                                         LEVEL CROUND STEP THRESHOLD =
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Imput file: MDL.SLOPE.20.30.85
                         File Crention Date: TMU, AUG 11 1983
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                                                                                                                                               ** MODELI PARAMETERS
                                                                                HEIGHT FILTER COEFFICIENT =
                                                                                                                                                                                                                                                                                                                0.25
                                                                                SLOPE FILTER COEFFICIENT
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                                                                                LEVEL CROUND STEP THRESHOLD :
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Input file: MDL.SLOPE.25.30.85
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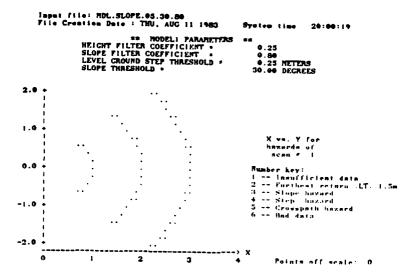
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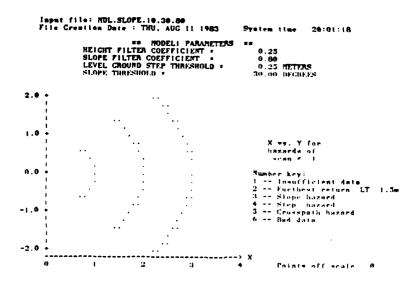
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    File Creation Date: THU, AUG 11 1983
                                                   System time
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                                                      0.25
              HEIGHT FILTER COEFFICIENT =
              SLOPE FILTER COEFFICIENT =
                                                      0.85
                                                      0.25 METERS
              LEVEL CROUND STEP THRESHOLD =
              SLOPE THRESHOLD =
                                                     30.00 DECREES
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                                                        X vs. Y for
                                                        hazards of
                                                         scan 🚜
                                                     Number key:
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                                                       -- Insufficient data
                                                       -- Furthest return .LT.
                                                       -- Slope hazard
                                                       -- Step hazard
                                                       -- Crosspath hazard
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                                                          Points off scale:
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                                             CATALOGED
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                                     -0.29
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                             1.31
                             1.35
                                     -0.23
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   13
           -9.84
                     1.37
                                                        Step hazard
                                     -0.17
                                               0.13
   14
           -7.02
                     1.42
                             1.41
   15
           -4.22
                     1.37
                             1.37
                                     -0.10
                                               0.12
                                                        Step hazard
                                               0.22
                     1.47
                             1.47
                                     -0.11
                                                        Step hazard
   16
           -1.41
                     1.42
                             1.42
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                                               0.13
                                                        Step hazard
                                      0.03
                                               0.13
                                                        Step hazard
   17
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                     1.42
                             1.42
            4.21
                     1.42
                                      0.10
                                               0.13
                                                        Step hazard
   18
                             1.42
   19
            7.02
                     1.42
                             1.41
                                      0.17
                                               0.13
                                                        Step hazard
                                      0.20
                                               0.34
                                                        Slope hazard
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                             1.62
                                      0.24
                                                        Step hozard
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TALOGED
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   31
                                                 TALOGED
   32
           43.55
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7.2.2.3 B=0.80; Slope Threshold=30

7.2.2.3.1	5 Degree Slope	125
7.2.2.3.1	10 Degree Slope	125
7.2.2.3.2	15 Degree Slope	126
7.2.2.3.3	20 Degree Slope	127
7.2.2.3.4	25 Degree Slope	128
7.2.2.3.5	30 Degree Slope	129
7.2.2.3.6	35 Degree Slope	130
7.2.2.3.7	40 Degree Slope	



NO HAZARDS CATALOGED THIS SCAN



NO RAZARDS CATALOGED THIS SCAN

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Input file: MDL.SLOPE.15.30.80
     File Creation Date : THU, AUG 11 1983
                                                    System time
                                                                    20:01:47
                          ** MODELI PARAMÈTERS
               HEICHT FILTER COEFFICIENT =
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               SLOPE FILTER COEFFICIENT
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               LEVEL CROUND STEP THRESHOLD =
                                                        0.25 METERS
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                                                      30.00 DECREES
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                                                          X vs. Y for
                                                          hazards of
                                                           scan 🐔
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                                                      Number key:
                                                      1 -- Insufficient data
                                                      2 -- Furthest return .LT. 1.5m
                                                      3 -- Slope hazard
                                                        -- Step hazard
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                                                      5 -- Crosspath hazard
                                                        -- Bad data
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                                                           Points off scale:
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            (deg)
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                           RAZARD TYPE
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          -35.13
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                    N O
                             1.83
  15
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                    1.84
                                     -0.13
                                              -0.08
                                                        Step hazard
          -1.41
  16
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                             1.84
                                     -0.05
                                              -0.08
                                                        Step hazard
  17
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                    1.84
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                                             CATALOGED
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                                                        Step hazard
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           9.83
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                                      0.31
                                              -0.08
                                                        Step hazard
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          12.64
                             2.20
                    2.25
                                      0.49
                                              -0.04
                                                        Crosspath hazard
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          15.45
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          29.50
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          32.31
                    N O
                           HAZARDS
                          HAZARDS
HAZARDS
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          35.12
                    N O
  30
          37.93
                                            C A T A L O G E D
C A T A L O G E D
                    N O
                          HAZARDS
HAZARDS
  31
          40.74
  32
          43.55
                    N O
                                             CATALOGED
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Input file: MDL.SLOPE.20.30.80
     File Creation Date: THU, AUG 11 1983
                                                                                20:02:47
                                                             System time
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                                                                 0.25
                 SLOPE FILTER COEFFICIENT
                                                                 0.80
                                                                 0.25 METERS
                 LEVEL GROUND STEP THRESHOLD =
                 SLOPE THRESHOLD =
                                                                30.00 DECREES
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                                                                    hazards of
                                                                     scan "
                                                                Number key:
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                                                                  -- Furthest return .LT. 1.5m
                                                                3 -- Slope hazard
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                                                                      Points off scale:
                                     AZIMUTH
              (deg)
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                                                                  HAZARD TYPE
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            -49.74
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                                 H A
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C A T A L O G E D
                                                           T A L O G E D
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            -37.93
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                                H A
                         N O
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           -29.50
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            -26.69
                         N O
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                                H A
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                         N O
            -7.02
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                                   1.99
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             12.64
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                                                                   Crosspath hazard
   22
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H A Z A R D S
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                                                      C A T A L O G E D
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C A T A L O G E D
   23
             18.26
                         N O
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             21.07
                         N O
                        N O
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N O

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Input file: MDL.SLOPE.25.30.80
    File Creation Date: THU, AUG 11 1983
                                                                        20:03:15
                                                        System time
                            ** MODELI PARAMETERS
               HEIGHT FILTER COEFFICIENT =
                                                           0.25
               SLOPE FILTER COEFFICIENT
                                                           0.80
               LEVEL CROUND STEP THRESHOLD =
                                                           0.25 METERS
               SLOPE THRESHOLD =
                                                          30.00 DECREES
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                                                               scan 🍼
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                                                          Number key:
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   31
                      N O
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Imput file: MDL.SLOPE.30.30.80
File Crention Date: THU, AUG 11
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HEIGHT FILTER COEFFICIENT =
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Input file: MDL.SLOPE.35.30.80
File Creation Date : THU, AUG 11 1983
                                                                                                        ** MODELI PARAMETERS
HEIGHT FILTER COEFFICIENT =
SLOPE FILTER COEFFICIENT =
LEVEL GROUND STEP THRESHOLD =
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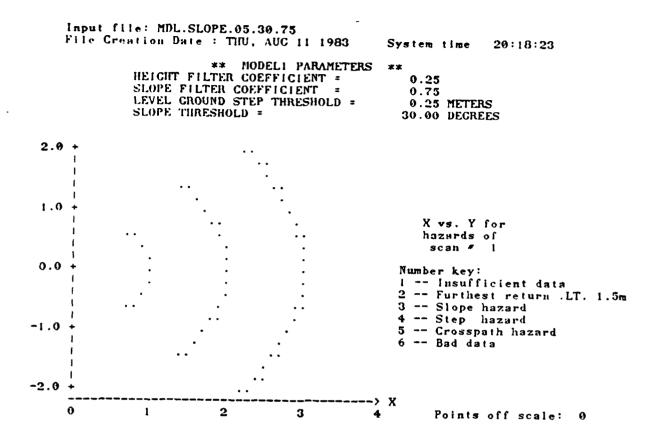
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7.2.2.4 <u>B=0.75</u>; <u>Slope</u> <u>Threshold=30</u>

7.2.2.4.1	5 Degree Slope	
7.2.2.4.2	10 Degree Slope	
7.2.2.4.3	15 Degree Slope	
7.2.2.4.4	20 Degree Slope	
7.2.2.4.5	25 Degree Slope	137
7.2.2.4.6	30 Degree Slope	138
7.2.2.4.7	35 Degree Slope	
7.2.2.4.8	40 Degree Slope	



NO HAZARDS CATALOGED THIS SCAN

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Input file: MDL.SLOPE.10.30.75
     File Creation Date : THU, AUG 11 1983
                                                                             20:19:31
                                                           System time
                             ** NODELI PARAMETERS
                HEIGHT FILTER COEFFICIENT =
                                                               0.25
                SLOPE FILTER COEFFICIENT
                                                               0.75
                LEVEL CROUND STEP THRESHOLD =
                                                               0.25 METERS
                SLOPE THRESHOLD =
                                                              30.00 DECREES
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                                                                  hazards of
                                                                   scan 🍍
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                                                                -- Slope hazard
                                                                -- Step hazard
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                                                                -- Crosspath hazard
                                                                -- Bad data
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             (deg)
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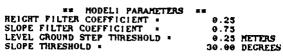
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       File Creation Date: THU, AUG 11 1983
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                       ** MODEL1 PARAMETERS
HEIGHT FILTER COEFFICIENT =
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                       SLOPE FILTER COEFFICIENT
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                       LEVEL CROUND STEP THRESHOLD =
                       SLOPE THRESHOLD =
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                                                                                          hazards of
                                                                                            scan #
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Imput file: MDL.SLOPE.29.39.75
                                                       Creation Date : THU, AUG 11 1983
                                                                                   ** MODELI PARAMETERS
HEIGHT FILTER COEFFICIENT =
SLOPE FILTER COEFFICIENT =
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SLOPE THRESHOLD =
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Imput file: MDL.SLOPE.23.30.75
File Crestion Date: THU, AUG 11 1983
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HEIGHT FILTER COEFFICIENT *
SLOPE FILTER COEFFICIENT *
LEVEL GROUND STEP TIMESHOLD *
SLOPE THRESHOLD *
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Imput file: MDL.SLOPE.30.30.75
File Creation Date: THU, AUG 11 1983
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          29:22:04
                                                                                                     ** MODELI PARAMETERS
HEIGHT FILTER COEFFICIENT *
SLOPE FILTER COEFFICIENT *
LEVEL CROUND STEP THRESHOLD *
SLOPE THRESHOLD *
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39.00 DECREES
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Imput file: MDL.SLOPE.35.30.75

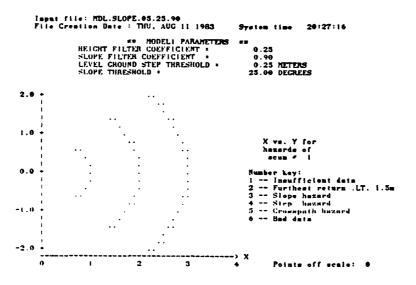


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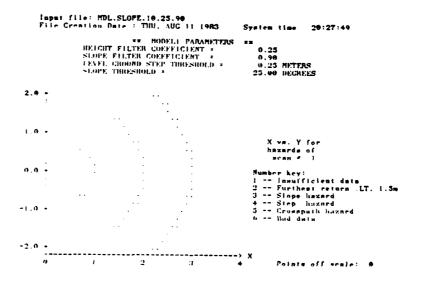
AZIMUTH	(4)	DANCE	v v	
AZINOTA	(deg) -43.56		X Y HAZARDS	Z HAZARD TYPE
2	-40.74	N O		CATALOGED
3	-37.93	NO	H A Z A R D S H A Z A R D S	C A T A L O G E D C A T A L O G E D
4	-35.13	NO		
5	-32.31	NO		CATALOGED
6	-29.50	N O		CATALOGED
7	-26.69	NO		C A T A L O G E D C A T A L O G E D
à	-23.88	NO		CATALOGED
9	-21.08	N O		CATALOGED
10	-18.26	N O		CATALOGED
11	-15.45	NO		CATALOGED
12	-12.64			CATALOGED
12	-12.04	1.26	1.23 -0.28	-0.07 Step hazard
13	-9.84	1.34	1.31 -0.29	0.07 Step hazard
13	-7.44	1.30	1.28 -0.22	0.02 Step hezerd
		1.37	1.35 -0.23	0.12 Slope hezard
		1.47	1.45 -0.25	0.22 Slope hazard
		1.67	1.65 -0.29	0.29 Slope hazard
14	-7.02	1.30	1.70 -0.29	0.31 Slope hazard
1.4	-7.02		1.29 -0.16	0.03 Step hazard
		1.37	1.36 -0.17	0.12 Slope hazard
15	-4.22	1.30	1.46 -0.18	0.22 Slope hazard
13	-4.22		1.30 -0.10	0.02 Step hazard
		1.37	1.37 -0.10	9.12 Slope hazard
		1.47 1.67	1.47 -0.11	9.22 Slope hazard
16	-1.41		1.67 -0.12	0.29 Slope hazard
10	-1.4	1.34	1.34 -0.03	0.09 Slope hezard
		1.37 1.47	1.37 -0.03	0.12 Slope hezerd
		1.59	1.47 -0.04	0.22 Slope hazard
17	1.40	1.34	1.58 -0.04	9.28 Slope hazard
• •	1.40	1.37	1.34 0.03	0.09 Slope hazard
		1.47	1.37 0.03	0.12 Slope hazard
			1.47 0.04	0.22 Slope hezard
18	4 31	1.63	1.63 0.04	0.34 Slope hazard
10	4.21	1.34	1.34 0.10	0.09 Slope hazard
		1.37	1.37 0.10	9.12 Slope huzard
		1.47	1.47 0.11	0.22 Slope hezard
19	7.02	1 . 63	1.63 0.12	9.34 Slope hazard
1.7	7.02	1.20	1.19 0.13	-0.04 Step huzard
		1.34	1.33 0.16	0.09 Slope hazurd
		1.37	1.36 0.17	0.12 Slope hazard
		1.47	1.46 0.18	0.22 Slope hazard
		1.39	1.57 0.19	0.28 Slope hazard
20	0.00	1.63	1.62 0.20	0.34 Slope huzurd
217	9.83	1.34	1.32 0.23	0.09 Slope hazard
		1.07	1.35 0.23	0.12 Slope hazard
		1.47	1.45 0.25	9.22 Slope hazard
		1.54	1.51 0.26	0.22 Step hazard
21	12.64	1.42	1.38 0.31	9.11 Step hazard
22		1.63	1.59 0.36	0.33 Stope buzued
22	15.45	1.42	1.37 0.38	0.11 Step huzurd
22		1.63	1.57 0.43	0.33 Slope hazard
23	18.26	1.30	1.24 0.41	0.02 Step hazard
		1.47	1.40 0.46	9.22 Slope hazard
		1.60	1.51 9.50	9.23 Step hazard
24	21.07	N 0	RAZARDS	CATALOGED
25	23.88	NO	HAZARDS	CATALOGED
26	26.69	N O	HAZARDS	CATALOGED
27	29 50	NÖ	HAZARDS	
28	32.41	4 0	HAZARDS	
29	35.12	4 0	HAZARDS	CATALOGED
30	47.93	N O	HAZARDS	CATALOGED
34	40.74	N O	HAZARDS	CATALOGED
32	43.35	N O	HAZARDS	CATALOGED
			•	- · · · · · · · · · · · · · · · · · · ·

7.2.2.5 B=0.90; Slope Threshold=25

7.2.2.5.1	5 Degree Slope	142
7.2.2.5.1	10 Degree Slope	142
7.2.2.5.2	15 Degree Slope	143
7.2.2.5.3	20 Degree Slope	144
7.2.2.5.4	25 Degree Slope	145
7.2.2.5.5	30 Degree Slope	146
7.2.2.5.6	35 Degree Slope	147
7 2 2 5 7	40 Degree Slope	



NO RAZARDS CATALOGED THIS SCAN



NO HAZARDS CATALOGED THIS SCAN

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Input file: MDL.SLOPE.15.25.90
              File Creation Date: TITU, AUC 11 1983
                                                                                                                                                              System time
                                                                                                                                                                                                              20:28:17
                                                                              ** MODELI PARAMETERS
                                            HEIGHT FILTER COEFFICIENT
                                                                                                                                                                        0.25
                                            SLOPE FILTER COEFFICIENT
                                                                                                                                                                       0.90
                                            LEVEL GROUND STEP THRESHOLD =
                                                                                                                                                                        0.25 METERS
                                            SLOPE THRESHOLD =
                                                                                                                                                                     25.00 DECREES
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HAZARDS

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Input file: MDL.SLOPE.20.25.90
     File Crention Date: THU, AUG 11 1983
                                                              System time
                                                                                20:28:45
                              ** MODEL1 PARAMETERS
                 HEIGHT FILTER COEFFICIENT =
                                                                 0.25
                 SLOPE FILTER COEFFICIENT
                                                                 0.90
                 LEVEL GROUND STEP THRESHOLD =
                                                                 0.25 METERS
                 SLOPE THRESHOLD =
                                                                25.00 DECREES
 2.0
 1.0
                                                                    X vs. Y for
                                                                    hazards of
                                                                     scan 🚜
                                                                Number key:
                                                                   -- Insufficient data
                                                                   -- Furthest return .LT. 1.5m
                                                                  -- Slope hazard
-- Step hazard
                                                                  -- Crosspath hazard
-1.0
                                                                  -- Bad data
-2.0
                                 2
                                              3
                                                                      Points off scale:
      0
                   1
                                Z
                                                                   RAZARD TYPE
 AZIMUTH
              (deg)
                         RANCE
                         N O
            -43.56
            -40.74
                         N O
     3
            -37.93
                         N O
                         N O
            -35.13
     5
            -32.31
                         N O
            -29.50
                         N O
                           0
            -26.69
                         N
     8
            -23.88
                         N O
                         N O
     9
            -21.08
    10
            -18.26
                         N
                           0
            -15.45
                         N O
    11
                         N O
    12
            -12.64
    13
             -9.84
                         N O
                         N O
             -7.02
    15
             -4.22
                         N O
             -1.41
                         N O
    16
                         N O
    17
              1.40
              4.21
7.02
    18
                         N O
                         N O
    19
                                   A Z A R D S
1.99 0.45
2.20 0.49
A Z A R D S
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B Z A R D S
B Z A R D S
B Z A R D S
    20
              9.83
                                                        -0.01
-0.01
   21
             12.64
                         2.04
                                              0.45
                                                                    Step hazard
                         2.25
                                                                    Crosspath hazard
                                              0.49
                                                                   OCED
                         N O
                                                      C A A C A A C A A C A
                                                           TAL
             15.45
                                 H A
                                                           TAL
   23
                         N O
                                 H A
             18.26
                                                                   0 G
    24
                         N O
                                 H A
             21.07
   25
26
27
28
                                                           TALOGED
             23.88
                         N O
                                 H A
                                                         ATALOGED
ATALOGED
                         N O
             26.69
                                 H A
             29.50
                         N
                           0
                                 H A
                                                           TALOGE
             32.31
                         N O
                                 ΗΛ
                                                         ATALOGED
    29
                         N O
             35.12
                                 II A
   30
             37.93
                         N O
                                 H A
                                                           J.
                                                              A L
                                                                   0 G
                                                      C A
                                                           T A
                                                                 L 0 G
             40.74
                         N O
                                 H A
   31
```

43.55

N O

```
Input file: MDL.SLOPE.25.25.90
    File Creation Date: THU. AUC 11 1983
                                                                      20:29:06
                                                      System time
                           ** MODELI PARAMETERS
               HEIGHT FILTER COEFFICIENT =
                                                          0.25
               SLOPE FILTER COEFFICIENT
                                                          0.90
               LEVEL CROUND STEP THRESHOLD =
                                                          0.25 METERS
               SLOPE THRESHOLD =
                                                        25.00 DECREES
 2.0
 1.0
                                                            X vs. Y for
                                                            hazards of
                                                             scan *
 0.0
                                                        Number key:
                                                           -- Insufficient data
                                                             Furthest return .LT. 1.5m
                                                          -- Slope hazard
                                                              Step hazard
-1.0
                                                             Crosspath hazard
                                                          -- Bad data
-2.0
                                                      X
     0
                 ı
                             2
                                         3
                                                              Points off scale:
                              AZIMUTH
            (deg)
                      RANCE
                                                          HAZARD TYPE
                                                             G E D
G E D
G E D
G E D
G E D
          -43.56
-40.74
                        0
                             H A
                      N
                                               CCCCC
                                                    TTTTTTTTTT
                                                           0
                                                      A
    2
                                                      A
A
A
                      N
                             H A
    3
          -37.93
                      N
                        0
                             H A
                                                           0
                      N
N
    4 5
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          -35.13
                             H A
                        0
          -32.31
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          -29.50
                      N
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          -26.69
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                        0
    8
          -23.88
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                      N
N
    9
          -21.08
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          -12.64
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   13
                      N
           -9.84
                             Н
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                     N
N
                                                           0 G
   14
           -7.02
                       0
                             Н
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                       0
   15
           -4.22
                                                           0
                                                             C
                                                                E
   16
           -1.41
                     N
                             H A
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                                                             CED
   17
            1.40
                     1.84
                               1.84
                                        0.05
                                                 0.12
                                                           Step bazard
            4.21
   18
                                        0.13
                     1.72
                               1.71
                                                 0.00
                                                           Step hazard
                            HAZARDS
HAZARDS
HAZARDS
                                               C A C A
                                                   TALOGED
TALOGED
TALOGED
            7.02
   19
                     N O
   20
            9.83
                       0
                     N
   21
                       Ŏ
           12.64
                     N
   22
           15.45
                     1.72
                               1.66
                                        0.46
                                                 0.01
                                                           Step hazard
                            23
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           18.26
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                                                          OCED
                                               C
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                                                   TA
   24
                                                   TALO
TALO
           21.07
                       0
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           23.88
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                                                             CE
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                                               C A
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           37.93
                     N
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                                                               E D
          40.74
  31
                     и о
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                                                                  D
  32
           43.55
                                                   TALO
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```
Input file: MDL.SLOPE.30.25.90
      File Crention Date : THU, AUG 11 1983
                                                                   System time
                                                                                       20:31:17
                                 ** MODELI PARAMETERS
                  HEIGHT FILTER COEFFICIENT =
                                                                       0.25
                   SLOPE FILTER COEFFICIENT
                                                                       0.90
                   LEVEL CROUND STEP THRESHOLD =
                                                                       0.25 METERS
                  SLOPE THRESHOLD =
                                                                      25.00 DECREES
 1.0
                                                                          X vs. Y for
                                                                          hazards of
                                                                           scan 🗸
 0.0
                                                                     Number key:
                                                                        -- Insufficient data
                                                                           Furthest return .LT. 1.5m
                                                                            Slope hazard
                                                                        -- Step hazard
-1.0
                                                                        -- Crosspath hazard
                                                                        -- Bad data
-2.0
                                   2
       0
                                                  3
                                                                            Points off scale:
                                   (deg)
 AZIMUTR
                           RANGE
                                                                ZTTTT
                                                                        HAZARD TYPE
                                                                   A
A
A
                                                                       L
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L
                                                                         0
             -43.56
                           N O
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C A T A L O
C A T A L O
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                           N
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     3
             -37.93
                           N
                              0
             -35.13
                           N
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                              0
                                                                            Č
             -32.31
                           N
                              0
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             -29.50
                           N
      6
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     7
             -26.69
                              0
     8
             -23.88
                           N O
                                                                               E D
             -21.08
     Q
                           N
                              0
                                                                            C
                                                                         0 G E D
0 G E D
    10
             -18.26
                           N O
    11
             -15.45
                           N O
    12
             -12.64
                           N O
                                       1.81
                                                                         Step hazard
Step hazard
                                                 -0.31
-0.20
    13
              -9.84
                           1.84
                                                              0.19
              -7.02
                                                              0.04
    14
                           1.61
                                       1.60
                                   HAZARDS
                                                           CATALOGED
    15
              -4.22
                           N O
                                                 -0.04
                                                              0.04
                                                                         Step hazard
    16
              -1.41
                           1.61
                                       1.61
    17
                                       1.55
                                                  0.04
                                                            -0.00
               1.40
                           1.55
                                                                         Step hazard
                           1.73
                                       1.73
                                                  0.04
                                                              0.18
                                                                         Step hazard
    18
                           1.55
                                       1.55
                                                  0.11
                                                             -0.00
               4.21
                                                                         Step hazard
                                   H A Z A R D S
H A Z A R D S
H A Z A R D S
                                                          C A T A L O G E D
C A T A L O G E D
C A T A L O G E D
                                                                      LOCED
    19
               7.02
                           N O
    20
               9.83
                           и о
    21
                           N O
              12.64
              15.45
                                       1.55
                                                  0.43
                                                                         Step hazard
    22
                           1.61
                                                              0.04
                           1.82
                                       1.76
                                                  0.49
                                                             0.15
                                                                         Step hazard
              18.26
    23
                                                  0.49
                                      1.47
                                                            -0.01
                           1.55
                                                                         Step hazard
                                                  0.55
                           1.75
                                      1.66
                                                            -0.01
                                                                         Crosspath hazard
                                   1.66 0.58
H A Z A R D S
H A Z A R D S
H A Z A R D S
H A Z A R D S
H A Z A R D S
H A Z A R D S
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H A Z A R D S
H A Z A R D S
H A Z A R D S
                                                          C A C A C A C A
                                                                TAL
TAL
TAL
TAL
              21.07
                                                                        O G E D
O G E D
    24
                           N O
              23.88
    25
                           N O
                                                                        0 G E D
    26
              26.69
                           N O
    27
              29.50
                           N O
    28
              32.31
                           N O
                                                                         0
                                                                     L
L
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C
    29
              35.12
                           N O
                                                                Т
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                                                                T A
T A
T A
    30
              37.93
                           N O
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                                                                                 D
                           N O
    31
              40.74
                                                          C
                                                             A
                                                                      l.
                                                                         0
                                                                           G
                                                                               E
              43.55
```

于2000分分子(Managora) 50%为少国的公约2000 图 2000 图

```
Input file: MDL.SLOPE.35.25.90
    File Crestion Date: THU, AUG 11 1983
                                                                     20:31:44
                                                     System time
                              MODELI PARAMETERS
                          **
              HEIGHT FILTER COEFFICIENT =
                                                        0.25
              SLOPE FILTER COEFFICIENT
                                                        0.90
               LEVEL CROUND STEP THRESHOLD =
                                                        0.25 METERS
               SLOPE THRESHOLD =
                                                       25.00 DECREES
 2.0
 1.0
                                                          X vs. Y for
                                                           hazards of
                                                            scan 🍎
                                                       Number key:
0.0
                                                         -- Insufficient data
                                                         -- Furthest return .LT. 1.5m
                                                            Slope hazard
                                                            Step hazard
                                                         -- Crosspath hazard
-1.0
                                                         -- Bad data
-2.0
                                                     X
     0
                            2
                                        3
                 1
                                                             Points off scale:
          (deg)
-43.56
                     RANCE
                                                         RAZARD TYPE
                                AZIMUTH
                                                   T
                                                     A L O C E D
A L O C E D
                            H A
                                               CCCCC
                     N O
    2
          -40.74
                            H A
                            H A
H A
                                                        L
L
    3
                                                      Α
                                                          0
          -37.93
                     N O
                                                          OGED
          -35.13
                     N
                       0
          -32.31
                                                        L
                                                          OGED
    5
                            II A
                     N
                       0
                                                 AT
                                                     A
                                                        L
L
                                                          0 G E D
                            H A
                                               00000
                     N
                       0
    6
          -29.50
                            H A
    7
          -26.69
                     N
                       0
                                                   T
    8
                            H A
                                                     Α
                                                        L O
          -23.88
                     N O
                                                   T A
T A
                                                 A
                                                        LOG
                                                              E D
    9
          -21.08
                     N O
                            H A
                                                 A
                                                        L
                                                            C
                                                              E D
   10
                     N O
                            H A
                                                          0
          -18.26
                            H A
                                               C A T A L O G E D C A T A L O G E D
                     N O
   11
          -15.45
                     N O
   12
          -12.64
                     1.23
                              1.21
                                       -0.21
                                                -0.11
                                                          Step hazard
   13
           -9.84
                                                 0.07
                                                          Step hazard
                              1.49
                                       -0.26
                     1.51
                                                 0.27
                     1.82
                              1.79
                                       -0.31
                                                          Step hazard
                                               CATALOGED
                            HAZARDS
           -7.02
                     N O
   14
   15
           -4.22
                     1.51
                              1.51
                                       -0.11
                                                 0.04
                                                          Step hozard
           -1.41
                     1.23
                              1.23
                                       -0.03
                                                -0.10
                                                          Step hazard
   16
                              1.62
                                                 0.23
   17
            1.40
                     1.63
                                        0.04
                                                          Step hazard
                                                 0.30
   18
            4.21
                     1.72
                                        0.13
                                                          Slope hazard
                            1.72 0.13
1.50 0.13
H A Z A R D S
H A Z A R D S
1.53 0.50
            7.02
                                                 0.06
                     1.51
                                        0.19
                                                          Step hazard
   19
                                               C A T A L O G E D C A T A L O G E D
   20
            9.83
                     N O
   21
                     N O
           12.64
                                               CATALOGED
                     N O
   22
           15.45
                                                 0.07
   23
           18.26
                     1.61
                                        0.50
                                                          Step hazard
                              0.07
                                                          Crosspath hazard
                     1.75
                                                   TALOGED
TALOGED
                                               C
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   24
           21.07
                     N O
                            H A
                                              C A T A L O G E D
C A T A L O G E D
C A T A L O G E D
C A T A L O G E D
           23.88
   25
                     N O
                            H A
                     N O
                            H A
   26
           26.69
   27
           29.50
                     N O
                            H A
           32.31
   28
                     N O
                            H A
                                                A
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Z A R D S
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                                                   TAL
                                                          OGED
                     N O
   29
           35.12
                            H A
   30
           37.93
                     N O
                            H A
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                                                              E
                                  ARDS
                                                   TALOGED
                     N O
                                Z
                                               C
                                                A
           40.74
                            H A
   31
                            HAZARDS
                                               CATALOGED
   32
           43.55
                     N O
```

```
Input file: MDL.SLOPE.40.25.90
File Creation Date: THU, AUC 11 1983
```

System time 20:32:12

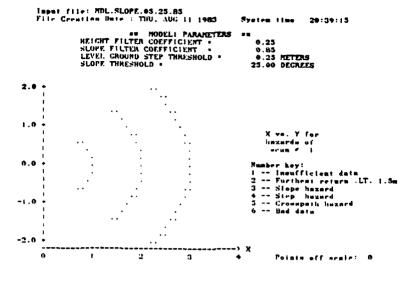
** MODELI PARAMETERS
HEIGHT FILTER COEFFICIENT = 0.25
SLOPE FILTER COEFFICIENT = 0.90
LEVEL CROUND STEP THRESHOLD = 0.25 METERS
SLOPE THRESHOLD = 25.00 DEGREES

```
2.0
 1.0
                                                                 X vs. Y for hazards of
                                                                   scan #
                                                              Number key:
 0.0
                                                              1 -- Insufficient data
                                                                -- Furthest return .LT. 1.5m
                                                                -- Slope hazard
-- Step hazard
                                                                -- Crosspath hazard
-- Bad data
-1.0
-2.0
                                             3
                                                                    Points off scale:
                                2
      0
                   1
```

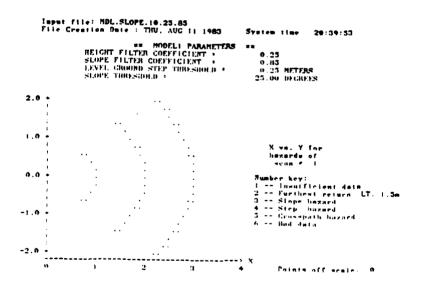
AZIMUTH	(deg)	RANGE	х у	Z HAZARD TYPE
1	-43.56	N O	HAZARDS	CATALOGED
2	-40.74	NO	HAZARDS	CATALOGED
3	-37.93	N O	HAZARDS	CATALOGED
4	-35.13	N O	HAZARDS	CATALOGED
5	-32.31	N O	HAZARDS	CATALOGED
6	-29.50	ΝŎ	HAZARDS	CATALOGED
7	-26.69	N O	HAZARDS	CATALOGED
Š	-23.88	N O	HAZARDS	CATALOGED
9	-21.08	N O	HAZARDS	CATALOGED
10	-18.26	ΝÖ	HAZARDS	CATALOGED
11	-15.45	ΝÕ	HAZARDS	CATALOGED
12	-12.64	1.34	1.31 -0.29	0.07 Step hazard
13	-9.84	N O	HAZARDS	CATALOGED
14	-7.02	N O	HAZARDS	CATALOGED
i 5	-4.22	NÖ	HAZARDS	CATALOGED
16	-1.41	1.42	1.42 -0.03	0.13 Step hazard
17	1.40	1.42	1.42 0.03	0.13 Step hazard
18	4.21	1.42	1.42 0.10	0.13 Step hazard
19	7.02	1.42	1.41 0.17	0.13 Step hazard
• •		1.63	1.62 0.20	0.34 Slope hazard
20	9.83	1.42	1.40 0.24	0.13 Step hazard
		1.54	1.51 0.26	0.22 Step hazard
21	12.64	NO	HAZARDS	CATALOGED
22	15.45	и о	HAZARDS	CATALOGED
23	18.26	1.60	1.51 0.50	0.23 Step hazard
24	21.07	N O	HAZARDS	CATALOGED
25	23.88	NO	HAZARDS	CATALOGED
26	26.69	NO	HAZARDS	CATALOGED
27	29.50	NO	HAZARDS	CATALOGED
28	32.31	N O	HAZARDS	CATALOGED
29	35.12	N O	HAZARDS	CATALOGED
30	37.93	N O	HAZARDS	CATALOGED
31	40.74	NO	HAZARDS	CATALOGED
32	43.55	N O	HAZARDS	CATALOGED

7.2.2.6 B=0.85; Slope Threshold=25

7.2.2.6.1	5	Degree	Slope	 150
7.2.2.6.1	10	Degree	Slope	 150
7.2.2.6.2	15	Degree	Slope	 151
7.2.2.6.3	20	Degree	Slope	 152
7.2.2.6.4	25	Degree	Slope	 153
7.2.2.6.5	30	Degree	Slope	 154
7.2.2.6.6	35	Degree	Slope	 155
7 2 2 6 7	40	Degree	Slope	156







NO RAZARDS CATALOGED TRIS SCAR

```
Input file: MDL.SLOPE.15.25.85
     File Creation Date: TIV. AUG 11 1983
                                                                                          20:40:29
                                                                     System time
                                  **
                                      MODELI PARAMETERS
                   HEIGHT FILTER COEFFICIENT
                                                                         0.25
                   SLOPE FILTER COEFFICIENT
                                                                         0.85
                                                                         0.25 METERS
                   LEVEL CROUND STEP THRESHOLD =
                   SLOPE THRESHOLD =
                                                                       25.00 DEGREES
 2.0
 1.0
                                                                            X vs. Y for
                                                                            hazards of
                                                                              scan *
                                                                       Number key:
                                                                          -- Insufficient data
                                                                              Furthest return .LT. 1.5m
                                                                              Slope hazard
                                                                              Step hazard
                                                                       5
                                                                          -- Crosspath hazard
-1.0
                                                                          -- Bad data
-2.0
                                                                     X
                                     2
                                                    3
       0
                      ı
                                                                               Points off scale:
                                         AZIMUTH
                (deg)
                           RANCE
                                                                   Z
                                                                          HAZARD TYPE
                                                                  TTT
                                                                              C E D
C E D
C E D
                                    H A
H A
             -43.56
                           N O
                                                            00000000000
                                                                      A
A
     t
                                                                           Ŏ
     2
             -40.74
                           N O
                                                               A
A
A
     3
             -37.93
                           и о
                                    H A
                                                            C A T A L
C A T A L
C A T A L
C A T A L
C A T A L
C A T A L
C A T A L
C A T A L
C A T A L
C A T A L
C A T A L
C A T A L
                                                                              G E D
G E D
G E D
                                                                           0
             -35.13
                           N O
                                    H A
     4
     5
             -32.31
                           N
                              0
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File Creation Date: THU, AUG 11 1983
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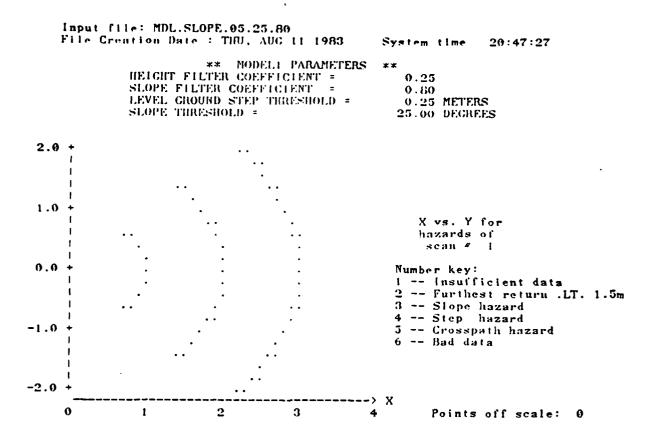
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A SANGA COMPLESS OF A SANGA CONTRACTOR OF THE SANGA CO

7.2.2.7 B=0.80; Slope Threshold=25 7.2.2.7.1 7.2.2.7.2 10 Degree Slope 7.2.2.7.3 15 Degree Slope 7.2.2.7.4 20 Degree Slope 25 Degree Slope162 7.2.2.7.5 7.2.2.7.6 30 Degree Slope 35 Degree Slope164 7.2.2.7.7 40 Degree Slope165 7.2.2.7.8



NO HAZARDS CATALOGED THIS SCAN

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Input file: MDL.SLOPE.10.25.80
     File Creation Date: THU, AUG 11 1989
                                                                                    20:48:06
                                                                 System time
                                ** MODELI PARAMETERS
                  HEIGHT FILTER COEFFICIENT =
                                                                     0.25
                  SLOPE FILTER COEFFICIENT =
                                                                     0.80
                  LEVEL GROUND STEP THRESHOLD =
                                                                     0.25 METERS
                  SLOPE THRESHOLD =
                                                                   25.00 DECREES
                                                                       X vs. Y for
                                                                       hazards of
                                                                         scan #
 0.0
                                                                   Number key:
                                                                      -- Insufficient data
                                                                         Furthest return .LT.
                                                                      -- Slope hazard
                                                                      -- Step hazard
-1.0
                                                                      -- Crosspath hazard
                                                                      -- Bad data
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                    1
                                                3
                                                               4
                                                                          Points off scale:
 AZIMUTH
               (deg)
                          RANCE
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            -32.31
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            -23.88
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                            0
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            -21.08
                         N
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   10
            -18.26
                         N
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   11
            -15.45
                          N
                            0
   12
            -12.64
                         N O
   13
             -9.84
                         N O
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-0.17
   14
             -7.02
                          1.97
                                     1.96
                                              -0.24
                                                                      Step hazard
   15
                                     1.96
             -4.22
                         1.97
                                               -0.14
                                                                      Step hazard
             -1.41
   16
                         1.97
                                     1.97
                                               -0.05
                                                          -0.17
                                                                      Step hazard
                                                          -0.17
-0.17
   17
              1.40
                         1.97
                                     1.97
                                                0.05
                                                                      Step hazard
              4.21
   18
                         1.97
                                     1.96
                                                0.14
                                                                      Step hazard
   19
                         1.97
              7.02
                                     1.96
                                                0.24
                                                          -0.17
                                                                      Step hazard
                                                          -0.17
-0.17
   20
              9.83
                         1.97
                                     1.94
                                                0.34
                                                                      Step hazard
   21
22
             12.64
                         1.97
                                     1.92
                                                0.43
                                                                      Step hazard
             15.45
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   30
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                         NO
                                                                ALOGED
   31
             40.74
                         N O
                                                                           E D
   32
             43.55
                                                        CATALOGED
                         N O
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Input file: MDL.SLOPE.15.25.80
    File Creation Date: THU, AUC 11 1983
                                                System time
                                                              20:48:46
                       ** MODELI PARAMETERS
             HEICHT FILTER COEFFICIENT =
                                                   0.25
             SLOPE FILTER COEFFICIENT = LEVEL GROUND STEP THRESHOLD =
                                                   0.80
                                                   0.25 METERS
                                                  25.60 DEGREES
             SLOPE THRESHOLD =
 2.0
 1.0
                                                     X vs. Y for
                                                     hazards of
                                                      scan #
                         3
                                                  Number key:
0.0
                         3.
                                                  1 -- Insufficient data
                                                    -- Furthest return .LT. 1.5m
                                                  3 -- Slope hazard
                                                    -- Step hazard
-1.0
                                                   -- Crosspath hazard
                                                    -- Bad data
-2.0
                         2
                                    3
                                                       Points off scale:
     0
               1
                                                    HAZARD TYPE
AZIMUTH
                   RANCE
                             X
           (deg)
                         HAZARDS
                                          CATALOGED
         -43.56
                   N O
         -40.74
                         HAZARDS
                                          CATALOGED
                   N O
   2
                         HAZARDS
HAZARDS
HAZARDS
                                          C A T A L O G E D
C A T A L O G E D
                   N O
    3
         -37.93
    4
         -35.13
                   N O
                                          CATALOGED
                   N O
    5
         -32.31
                         HAZARDS
                                          CATALOGED
   6
         -29.50
                   N O
                         HAZARDS
HAZARDS
                                          C
                                            ATALOG
   7
         -26.69
                   N O
                                          CATALOGED
                   N O
   8
         -23.88
                         HAZARDS
                                          CATALOGED
         -21.08
                   N O
   9
                         HAZARDS
HAZARDS
                                          C A T A L O G E D
C A T A L O G E D
         -18.26
                   N O
   10
         -15.45
                   N O
  11
                         HAZARDS
HAZARDS
         -12.64
                   N O
                                          CATALOGED
   12
                                          CATALOGED
          -9.84
                   N O
   13
                                   -0.17
                                           -0.24
                                                    Step hazard
          -7.02
                   1.40
                           1.39
   14
                           1.87
                                   -0.14
                                           -0.01
                                                    Slope hazard
   15
          -4.22
                   1.88
                                   -0.05
                                           -0.01
                                                    Slope hazard
                   1.88
                           1.88
          -1.41
   16
                                                    Slope hazard
                   1.88
                           1.83
                                    0.05
                                           -0.01
  17
          1.40
                                          CATALOGED
           4.21
                         HAZARDS
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                           1.87
                                    0.23
                                           -0.01
                                                    Slope hazard
           7.02
                   1.88
  19
           9.83
                   1.88
                           1.85
                                    0.32
                                           -0.01
                                                    Slope hazard
  20
                                    0.49
                                           -0.04
                                                    Crosspath hazard
                           2.20
  21
          12.64
                   2.25
                                          C A T A L O G E D
C A T A L O G E D
                         HAZARDS
  22
          15.45
                   N O
                         HAZARDS
HAZARDS
  23
          18.26
                   N O
                                          CATALOGED
  24
                   N O
          21.07
  25
          23.88
                   N O
                         HAZARDS
                                          CATALOGED
                         HAZARDS
HAZARDS
                                          C A T A L O G E D
C A T A L O G E D
  26
                   N O
          26.69
  27
          29.50
                   N O
  28
                         HAZARDS
                                          CATALOGED
          32.31
                   N O
                         HAZARDS
                                          CATALOGED
  29
                   N O
          35.12
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HAZARDS HAZARDS

HAZARDS

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31

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43.55

N O

N O

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CATALOGED

シャンコンシャンのシャンの関係というという。 対力のシング 国内のの対象の 一下のものの かんだい

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Imput file: MDL.SLOPE.20.25.80
File Cremtion Date: THU, AUG 11 1983
                                                                                                                                                                                                                                                                                     ** MODELL PARAMETERS
HEIGHT FILTER COEFFICIENT *
SLOPE FILTER COEFFICIENT *
LEVEL GROUND STEP THRESHOLD *
SLOPE THRESHOLD *
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0.25
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25.00 DECREES
                  1.0
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scan *
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                  0.0
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Insufficient dat:
Furthest return
Slope hazard
Step hazard
Crosspath hazard
Bad data
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                  AZIMITA
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-43.56
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-32.31
-29.50
-26.69
-20.88
-18.26
-15.45
-12.64
-7.02
-4.22
-1.41
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Imput file: MDL.SLOPE.30.25.80
File Cremtion Dute: THU, AUC 11 1983
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                                                       ** MODELI PARAMETERS
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SLOPE FILTER COEFFICIENT *
LEVEL CROUND STEP THRESHOLD *
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Imput file: HDL.SLOPE.35.25.80
File Cremtion Oute : THU, AUG 11 1983
                                                                                              ## HODELI PARAMETERS
HEIGHT FILTER COEFFICIENT *
SLOPE FILTER COEFFICIENT *
LEVEL GROUND STEP THRESHOLD *
SLOPE THRESHOLD *
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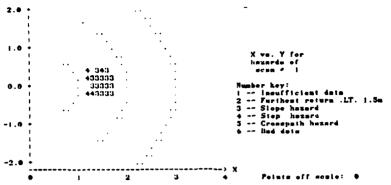
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3	-40.74 -37.93	NO HAZ	ARDS	CATALOGED CATALOGED
•	-35.13	NO HAZ	ARDS	CATALOGED
5 6	-32.31 -29.30	NO NA 2 NO HA 7 NO HA 2 NO HA 2 NO HA 2 NO HA 2	ARDS	CATALOGED CATALOGED CATALOGED CATALOGED
7	-26.69	NO HAZ	ARDS	CATALOGED CATALOGED CATALOGED CATALOGED CATALOGED
8	-23.88 -21.08	NO HAZ	ARDS	CATALOGED CATALOGED CATALOGED
10	-18.26	NO HAZ	ARDS	CATALOGED
11	-15.45 -12.64	1.26 1.2	3 -0.28	-0.07 Step hazard
13	-9.84	1.34 1.3		0.07 Step hozord 0.02 Step hozord
1.5	-7.04	1.37 1.3	15 -0.23	0 17 Slage burned
		1.47 1.5	50 -0.28	0.22 Slepe hazard 0.24 Slepe hazard 0.29 Slepe hazard
		1.67 1.0	55 -0.29	9.29 Slope hazard 9.31 Slope hazard
14	-7.02	1.72 1.3	29 -0.16	0.03 Step hexard
		1.37 1.3	36 - 0.17	0.12 Slope hezard 0.22 Slope hezard
		1.54 1.	32 -0.19	0.23 Slope hexard
		1.67 1.6	66 -0.20	0.29 Slope hozerd 0.31 Slope hozerd
15	-4.22	1.30 1.3	20 -0.10	0.92 Step hazard
		1.37 1.3	17 -0.11	0.12 Slope hexard 0.22 Slope hexard
		1.67 1.6	67 -0.12 72 -0.13	0.29 Slope hazard 0.31 Slope hazard
16	-1.41	1.34 1.3	14 -0.03	0.09 Slope hazard
		1.07 1.0	62 -0.03	0.12 Slope hazard 0.13 Slope hazard
		1.47 1.54	47 -0.04 53 -0.04	0.22 Slove hexard
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26 27	26 69 29 50	TO HA	ZARDS	CATALOGED
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31 32	40.74 43.55	7 0 H A	2 A B D S . Z A B D S .	CATALOGED CATALOGEO

7.2.2.8 B=0.75; Slope Threshold=25

7.2.2.8.1	5	Degree	Slope	167
7.2.2.8.2	10	Degree	Slope	168
7.2.2.8.3	15	Degree	Slope	169
7.2.2.8.4	20	Degree	Slope	170
7.2.2.8.5	25	Degree	Slope	171
7.2.2.8.6	30	Degree	Slope	172
7.2.2.8.7	35	Degree	Slope	173
7.2.2.8.8	40	Degree	Slope	174

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Input file: MDL.SLOPE.05.25.75
    File Creation Date : FRI, AUG 12 1983
                                                                  18:43:36
                                                  System time
                         ** MODELI PARAMETERS
              HEIGHT FILTER COEFFICIENT =
                                                     \substack{0.25\\0.75}
              SLOPE FILTER COEFFICIENT
              LEVEL CROUND STEP THRESHOLD =
                                                     0.25 METERS
              SLOPE THRUSHOLD =
                                                    25.00 DECREES
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                                                        X vs. Y for
                                                        hazards of
                                                         scan 🚜
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                                                    Number key:
                                                      -- Insufficient data
                                                      -- Furthest return .LT. 1.5m
                                                          Slope hazard
                                                          Step hazard
-1.0
                                                      -- Crosspath hazard
                                                          Bad data
-2.0
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                           2
                                      3
                1
                                                          Points off scale:
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           (deg)
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                                                      HAZARD TYPE
         -43.56
                    N O
   2
         -40.74
                    N O
   3
         -37.93
                    N O
   4
5
         -35.13
                    N O
                    N O
         -32.31
   6
         -29.50
                    N O
                    N O
         -26.69
                    N O
   8
         -23.88
   9
         -21.08
                    N
                      0
         -18.26
  10
                    N
                      0
  11
         -15.45
                    N
                      0
         -12.64
-9.84
                    N
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                      0
                   N 0
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Input file: MDL.SLOPE.10.25.75
         File Creation Date: FRI, AUC 12 1983
                                                                                                                                           18:45:16
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                                                              MODELI PARAMETERS
                                                                                                                 \substack{0.25\\0.75}
                             HEIGHT FILTER COEFFICIENT =
                             SLOPE FILTER COEFFICIENT
                                                                                                                 0.25 METERS
                             LEVEL CROUND STEP THRESHOLD =
                             SLOPE THRESHOLD =
                                                                                                               25.00 DECREES
  2.0
                                                                                                                      X vs. Y for
                                                                                                                      hazards of
                                                                                                                        scan *
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                                                                                                               Number key:
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                                                                                                                        Furthest return .LT. 1.5m
                                                                                                                         Slope hazard
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                                                                                                                         Points off scale:
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                                          1.64
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File Creation Date : FRI, AUG 12 1983
                                                                                 System time
                                                                                                          18:46:01
                                         ** MODELI PARAMETERS
                                                                                      0.25 \\ 0.75
                       HEIGHT FILTER COEFFICIENT =
                       SLOPE FILTER CONFFICIENT =
                       LEVEL CROUND STEP TRRESHOLD =
                                                                                      0.25 METERS
                       SLOPE TERRESHOLD
                                                                                    25.00 DECREES
  2.0
  1.0
                                                                                         X vs. Y for
                                                                                         hazards of
                                          11:
                                                                                           scan #
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                                          :3 .
                                                                                    Number key:
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                                          3.
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                                                                                       -- Furthest return .LT. 1.5m
                                                                                       -- Slope hazard
-- Step hazard
                                                                                       -- Crosspath hazard
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                                                                                       -- Bad data
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                          1
                                           2
                                                             3
                                                                              4
                                                                                            Points off scale:
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                   (deg)
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                                                                                       RAZARD TYPE
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                                 NO
               -26.69
                                 NO
      3
               -23.88
                                 N O
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               -21.08
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                49.74
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Input file: MDL.SLOPE.15.25.75

Constitution Constitution

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Imput file: MDL.SLOPE.20.25.75
File Creation Date: FRI, AUC 12 1983
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          18:46:32
                                                                                                                    ** MODELL PARAMETERS
HEIGHT FILTER COEFFICIENT :
SLOPE FILTER COFFFICIENT :
LEVEL CROUND STEP THRESHOLD :
SLOPE THRESHOLD :
                                                                                                                                                                                                                                                                                                                                                                                                                                                      0.25
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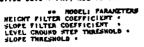
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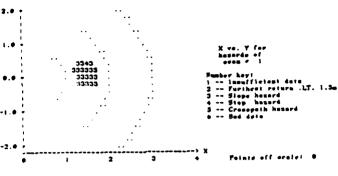
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3	-37.93 -35.13	NO NAZARDS CATALOGED
4 5	-32.31 -29.30 -20.88 -21.08	NO NAZARDS CATALOGED NO NAZARDS CATALOGED
6	-29.50	NO HAZARDS CATALOGED
•	-23.88 -21.08	NO HAZARDS CATALOGED NO HAZARDS CATALOGED NO HAZARDS CATALOGED NO HAZARDS CATALOGED
10	-18.26	NO HAZARDS CATALOGED
10 11 13	-18.26 -13.45 -12.64	NO HAZARDS CATALOGED
12	-12.64	1.34 1.31 -0.29 6.67 Step basard
13	-4.84	1.30 1.31 -0.20 0.07 Sleps harard 1.31 -0.20 0.07 Sleps harard 1.32 -0.21 0.00 Sleps harard 1.37 1.33 -0.23 0.12 Sleps harard 1.47 1.43 -0.23 0.21 Sleps harard 1.31 -0.14 0.01 Sleps harard 1.31 -0.14 0.01 Sleps harard 1.31 -0.14 0.01 Sleps harard 1.31 -0.17 0.13 Sleps harard 1.47 1.46 -0.18 0.22 Sleps harard 1.47 1.46 -0.18 0.22 Sleps harard 1.47 1.46 -0.18 0.22 Sleps harard 1.47 1.46 -0.19 0.23 Sleps harard 1.47 1.46 -0.20 0.23 Sleps harard 1.47 1.47 -0.11 0.22 Sleps harard 1.47 1.47 -0.11 0.22 Sleps harard 1.47 1.47 -0.11 0.22 Sleps harard 1.47 1.47 -0.12 0.23 Sleps harard 1.47 1.47 -0.13 0.31 Sleps harard 1.47 1.47 -0.14 0.22 Sleps harard 1.47 1.47 -0.13 0.31 Sleps harard 1.47 1.47 -0.13 0.31 Sleps harard 1.34 1.34 -0.03 0.00 Sleps harard 1.34 1.34 -0.03 0.00 Sleps harard 1.37 1.37 -0.33 1.32 Sleps harard 1.47 -0.43 0.12 Sleps harard 1.47 -0.43 0.12 Sleps harard 1.47 -0.44 -0.32 0.22 Sleps harard 1.47 -0.44 -0.32 Sleps harard 1.47 -0
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7.2.3 Two Steps Test Results

7.2.3.1	Heights:	0 cm,	35	cm	. 176
7.2.3.2	Heights:	5 cm,	35	cm	. 177
7.2.3.3	Heights:	10 cm,	35	cm	. 178
7.2.3.4	Heights:	15 cm,	35	cm	.179
7.2.3.5	Heights:	20 cm,	35	cm	. 180
7.2.3.6	Heights:	25 cm,	35	cm	. 181
7.2.3.7	Heights:	30 cm,	35	cm	. 182
7 2 3 8	Heights:	35 cm	35	cm	183

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input file: MDL.TWO.14.08
                        File Creation Date : SAT, AUG 06 1983
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Input file: MDL.TWO.14.10
File Creation Date: SUN, AUG 07 1983
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SLOPE FILTER COEFFICIENT *
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File Creation Date : SUN, AUG 07 1983
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SLOPE FILTER COEFFICIENT *
LEVEL CROUND STEP THRESHOLD *
SLOPE THRESHOLD *
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2.0
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scan / 1
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i -- innufficient data
2 -- Furtheat return .LT. 1.5m
3 -- Slope hazard
4 -- Step hazard
5 -- Crossputh hazard
6 -- Bud data
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7.2.4 Parallel Obstacles Test Results

7.2.4.1	Path Width: 1	100 cm	 185
7.2.4.2	Path Width: 1	110 cm	 186
7.2.4.3	Path Width: 1	120 cm	 187
7.2.4.4	Path Width: 1	130 cm	 188
7.2.4.5	Path Width: 1	140 cm	 189
7216	D-46 W:J46. 1	150 cm	100

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Imput file: HDL.PATH.10
File Crestion Date: WED, AUG 10 1983
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                                                 ** HODELI PARAMETERS
HEIGHT FILTER COEFFICIENT *
SLOPE FILTER COEFFICIENT *
LEVEL CROUND STEP THRESHOLD *
SLOPE THRESHOLD *
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2 -- Furthest return .1
3 -- Slope hazard
4 -- Step hazard
5 -- Crosspath hezard
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Input file: MDL.PATH.12
File Creation Date : MED, AUG 10 1983
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                                                                                                       HEIGHT FILTER COEFFICIENT .
SLOPE FILTER COEFFICIENT .
LEVEL GROUND STEP THRESHOLD .
SLOPE THRESHOLD .
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-- Step huzard
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-7.02

-4.22

-1.41

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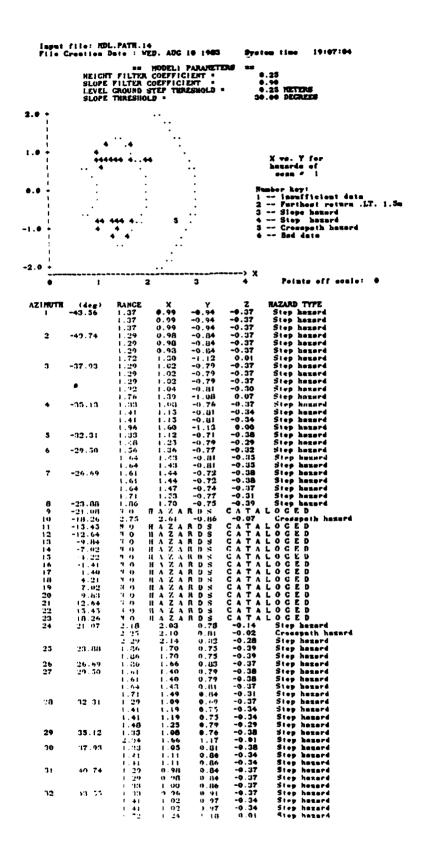
18.26
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Imput file: MDL.PATE.13
File Creation Date: WED. AUG 10 1963
                                                                                                               ** HODELI PARAMETERS
REIGHT FILTER COEFFICIENT *
SLOPE FILTER COEFFICIENT *
LEVEL CROUND STEP THRESHOLD *
SLOPE THRESHOLD *
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0.90
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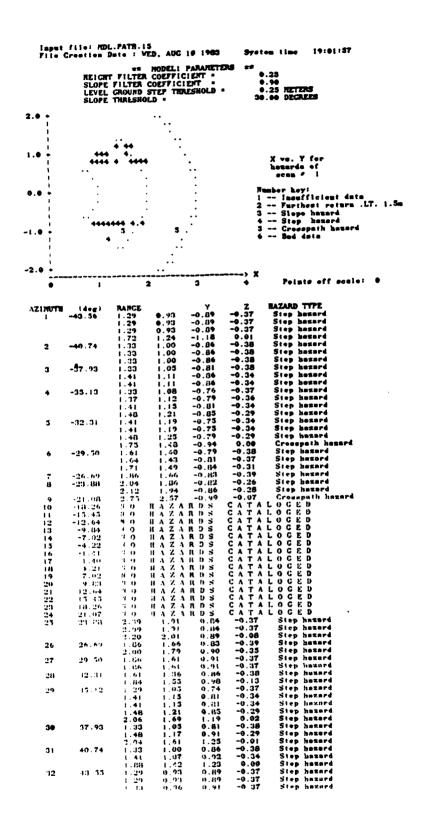
COL CONSTRUCTOR

少女女们也多多多多女女女们们的人们的人的人们也会会会这样,他们也会会会会会是一个人的人的人的人。



RECORDED INTERNATIONAL PROPERTY.

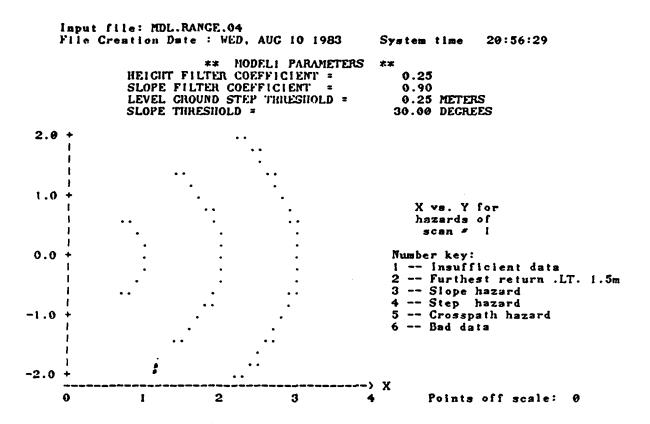
KAN MIKAKAYAN III MALALAMBIN ALALAMBIN MANAKAA MAKAKAKAN MAKAKAKAN KAKAKAKA KAKAKAKAN MAKAKAKA MAKAKAKA MAKAKAKA MAKA



7.2.5 Range Test Results

7.2.5.1	Range of	Obstacle:	40 cm	192
7.2.5.2	Range of	Obstacle:	50 cm	193
7.2.5.3	Range of	Obstacle:	60 cm	194
7.2.5.4	Range of	Obstacle:	70 cm	195
7.2.5.5	Range of	Obstacle:	80 cm	196
7.2.5.6	Range of	Obstacle:	90 cm	197
7.2.5.7	Range of	Obstacle:	90 cm	198
7.2.5.8	Range of	Obstacle:	110 cm	199
7.2.5.9	Range of	Obstacle:	120 cm	200
7.2.5.10	Range of	Obstacle:	130 cm	201
7.2.5.11	Range of	Obstacle:	140 cm	202
7.2.5.12	Range of	Obstacle:	150 cm	203
7.2.5.13	Range of	Obstacle:	160 cm	204
7.2.5.14	Range of	Obstacle:	170 cm	205
7.2.5.15	Range of	Obstacle:	180 cm	206
7.2.5.16	Range of	Obstacle:	190 cm	207
7.2.5.17	Range of	Obstacle:	200 cm	208
7.2.5.18	Range of	Obstacle:	210 cm	209
7.2.5.19	Range of	Obstacle:	220 cm	210
7.2.5.20	Range of	Obstacle:	230 cm	

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NO HAZARDS CATALOGED THIS SCAN

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Input file: MDL.RANCE.05
    File Creation Date: WED, AUG 10 1983
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                                                      System time
                          ** MODEL1 PARAMETERS
               HEIGHT FILTER COEFFICIENT =
                                                         0.25
               SLOPE FILTER COEFFICIENT
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                                                         0.25 METERS
               LEVEL CROUND STEP THRESHOLD =
                                                        30.00 DEGREES
               SLOPE THRESHOLD =
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                                                            hazards of
                                                             scan #
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Input file: MDL.RANGE.06
     File Creution Date: WED, AUG 10 1983
                                                                                 20:51:49
                                                              System time
                                   MODELI PARAMETERS
                               **
                 HEIGHT FILTER COEFFICIENT =
SLOPE FILTER COEFFICIENT =
LEVEL GROUND STEP THRESHOLD =
                                                                  0.25
                                                                  0.90
                                                                  0.25 METERS
                 SLOPE THRESHOLD =
                                                                 30.00 DECREES
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                                                                     hazards of
                                                                      scan #
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                                                                 Number key:
                                                                   -- Insufficient data
                                                                   -- Furthest return .LT. 1.5m
                                                                       Slope hazard
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Input file: MDL.RANGE.07
    File Creation Date: WED, AUC 10 1983
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                               ** MODELI PARAMETERS
                HEIGHT FILTER COEFFICIENT =
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                 SLOPE FILTER COEFFICIENT
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                 LEVEL CROUND STEP THRESHOLD =
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Input file: MDL.RANGE.08
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      File Crestion Date: WED, AUG 10 1983
                                                                            System time
                     ** MODELI PARAMETERS
HEICHT FILTER COEFFICIENT =
                                                                                 0.25
                                                                                 0.90
                     SLOPE FILTER COEFFICIENT
                     LEVEL GROUND STEP THRESHOLD =
                                                                                 0.25 METERS
                                                                               30.00 DEGREES
                     SLOPE THRESHOLD =
                                                                                    X vs. Y for
                                                                                    hazards of
                                                                                      scan #
                                                                               Number key:
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                                                                                   -- Insufficient data
                                                                                  -- Furthest return .LT. 1.5m
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Input file: MDL.RANGE.09
             File Creation Date: WED, AUG 10 1983
                                                                                                                                                                                                      20:45:23
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                                                                                         MODELI PARAMETERS
                                                                            **
                                          HEIGHT FILTER COEFFICIENT =
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Imput file: MDL.RANGE.10
File Creation Date: WED, AUG 10 1983
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SLOPE FILTER COEFFICIENT *
LEVEL GROUND STEP THRESHOLD *
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Imput file: HDL.RANGE.11
File Cremtion Date: WED, AUG 10 1983
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Imput file: MDL.RANGE.12
          File Creation Date :
                                                                 WED. AUG 10 1983
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SLOPE FILTER COEFFICIENT =
LEVEL GROUND STEP THRESHOLD =
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Imput file: MDL.RANGE.13
File Crestion Date: WED, AUG 10 1983
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HEIGHT FILTER COEFFICIENT *
SLOPE FILTER COEFFICIENT *
LEVEL GROUND STEP TRRESHOLD
SLOPE THRESHOLD *
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File Crestion Date: VED, AUG 10 1983
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Input file: MDL.RANGE.15
             File Crestion Date: WED, AUG 10 1983
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                                          ** MODEL1 PARAMETERS
HEICHT FILTER COEFFICIENT =
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                                          SLOPE FILTER COEFFICIENT
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                                          LEVEL CROUND STEP THRESHOLD =
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Input file: MDL.RANCE.16
     File Creation Date: WED, AUG 10 1983
                                                           System time
                                                                              19:51:27
                ** MODELI PARAMETERS
HEIGHT FILTER COEFFICIENT =
                                                               0.25
                SLOPE FILTER COEFFICIENT = LEVEL GROUND STEP THRESHOLD =
                                                               0.90
                                                               0.25 METERS
                 SLOPE THRESHOLD =
                                                              30.00 DECREES
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                                                                 hazards of
                                                                   scan 🚜
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                                                                -- Furthest return .LT. 1.5m
                                                                    Slope hazard
                                                                    Step hazard
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                                                                    Crosspath hazard
                                                                    Bad data
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Input file: MDL.RANCE.17
      File Creation Date : WED, AUG 10 1983
                                                                                                  19:53:52
                                                                           System time
                                     ** MODEL1 PARAMETERS
                     HEIGHT FILTER COEFFICIENT =
                                                                                0.25
                                                                                0.90
                     SLOPE FILTER COEFFICIENT
                     LEVEL CROUND STEP THRESHOLD =
                                                                                0.25 METERS
                     SLOPE THRESHOLD =
                                                                              30.00 DECREES
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                                                                                   hazards of
                                                                                     scan #
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                                                                                      Furthest return .LT. 1.5m
                                                                                      Slope hazard
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1800年によって、2000年代でのため、1800年のようには1900年のからのの1900年間である。

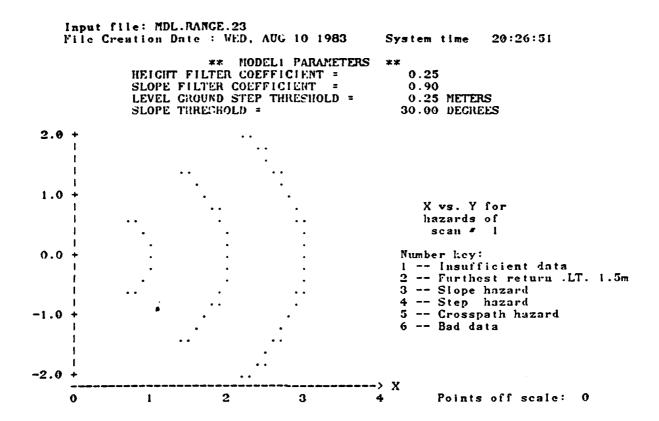
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Input file: MDL.RANGE.18
            File Creation Date: WED, AUG 10 1983
                                                                                                                                                                                                   19:55:41
                                                                                                                                                     System time
                                                                                     NODELI PARAMETERS
                                          HEIGHT FILTER COEFFICIENT =
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                                          SLOPE FILTER COEFFICIENT
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                                         LEVEL CROUND STEP THRESHOLD = SLOPE THRESHOLD =
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                                                                                                                                                                      hazards of
                                                                                                                                                                         scan #
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                                                                                                                                                            Number key:
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                                                                                                                                                                  -- Furthest return .LT. 1.5m
                                                                                                                                                                           Slope hazard
                                                                                                                                                                           Step hazard
                                                                                                                                                                 -- Crosspath hazard
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Input file: MDL.RANGE.19
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                                          HEICHT FILTER COEFFICIENT =
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                                          SLOPE FILTER COEFFICIENT
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Input file: MDL.RANGE.20
     File Creation Date: WED, AUG 10 1983
                                                                 System time
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                  ** MODEL1 PARAMETERS
HEICHT FILTER COEFFICIENT =
                                                                     0.25
                  SLOPE FILTER COEFFICIENT
                                                     =
                                                                     0.90
                                                                     0.25 METERS
                  LEVEL CROUND STEP THRESHOLD =
                                                                    30.00 DECREES
                  SLOPE THRESHOLD =
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                                                                        hazards of
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                                                                    Number key:
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                                                                       -- Furthest return .LT. 1.5m
                                                                      -- Slope hazard
                                                                      -- Step hazard
                                                                      -- Crosspath hazard
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Input file: MDL.RANGE.21
      File Creation Date: WED, AUG 10 1983
                                                                      System time
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                                   ** MODEL1 PARAMETERS
                   HEIGHT FILTER COEFFICIENT =
                                                                          0.25
                   SLOPE FILTER COEFFICIENT
                                                                          0.90
                   LEVEL CROUND STEP THRESHOLD =
                                                                          0.25 METERS
                   SLOPE THRESHOLD =
                                                                         30.00 DECREES
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                                                                             hazards of
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                                                                         Number key:
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                                                                           -- Slope hazard
                                                                           -- Step hazard
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                                                                           -- Crosspath hazard
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                                                             CATALOGED
CATALOGED
   31
              40.74
                           N O
              43.55
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Input file: MDL.RANGE.22
     File Creation Date: WED, AUG 10 1983
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                                                                0.90
                 LEVEL GROUND STEP THRESHOLD =
                                                                0.25 METERS
                                                              30.00 DEGREES
                 SLOPE THRESHOLD =
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                                                                  X vs. Y for
                                                                  hazards of
                                                                    scan #
                                                              Number key:
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                                                                -- Furthest return .LT. 1.5m
                                                              3 -- Slope hazard
                                                                -- Step hazard
                                                                -- Crosspath hazard
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                                                              6 -- Bad data
-2.0
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                                                                 HAZARD TYPE
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              (deg)
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           -23.88
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            -4.22
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                                                     CATALO
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                        2.29
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                                                                       hazard
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NO HAZARDS CATALOGED THIS SCAN

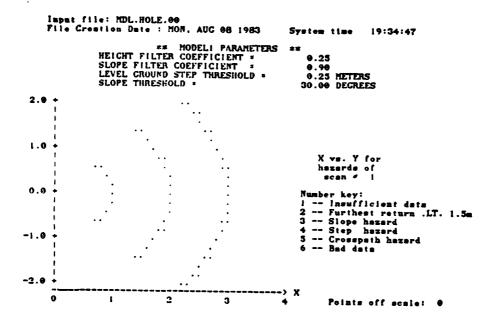
7.2.6 Hole Tests Results

or becauses grouped levisities congress sacretion

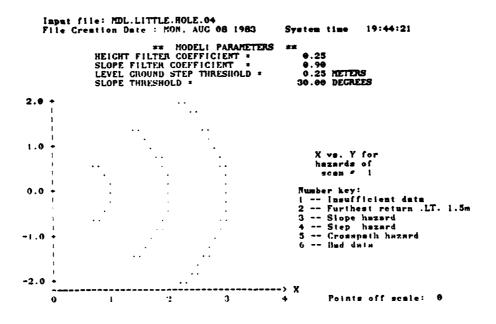
7.2.6.1	Small Square Hole: 30 cm x 30 cm21
7.2.6.2	Rectangular Hole: 30 cm x 60 cm
7 2 6 3	Large Square Hole: 60 cm x 60 cm 20

7.2.6.1 Small Square Hole: 30 cm x 30 cm

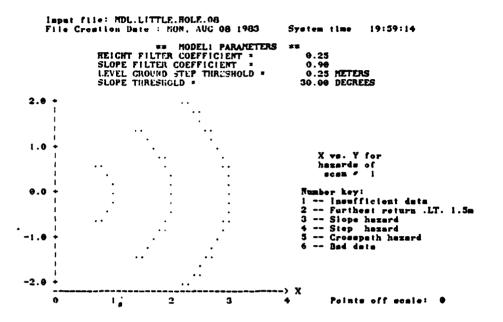
7.2.6.1.1	0 cm Depth21
7.2.6.1.1	10 cm Depth21
7.2.6.1.2	20 cm Depth21
7.2.6.1.2	25 cm Depth21
7.2.6.1.3	30 cm Depth21
72614	36 cm Depth



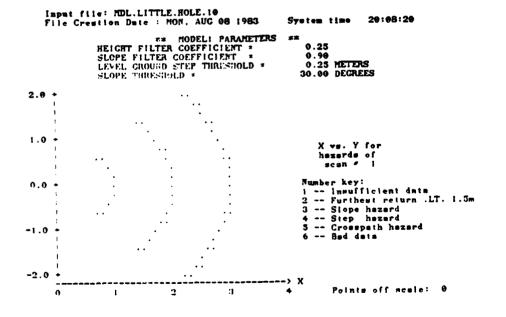
NO HAZARDS CATALOGED THIS SCAR



NO HAZARDS CATALOGED THIS SCAN



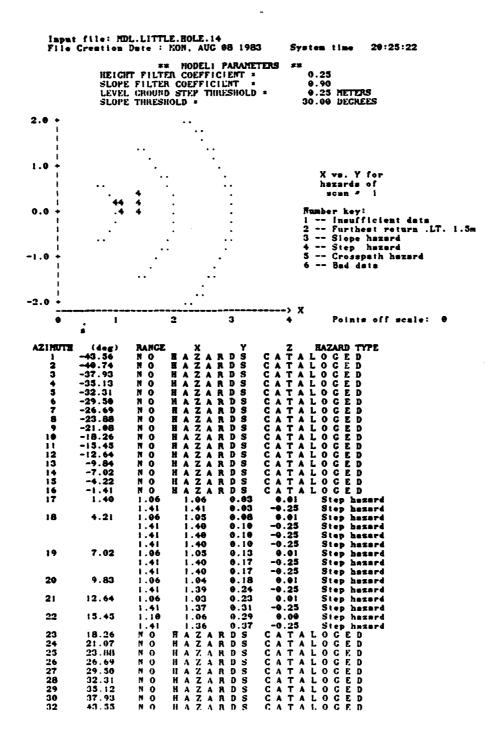
NO BAZARDS CATALOGED THIS SCAN



NO HAZARDS CATALOGED THIS SCAN

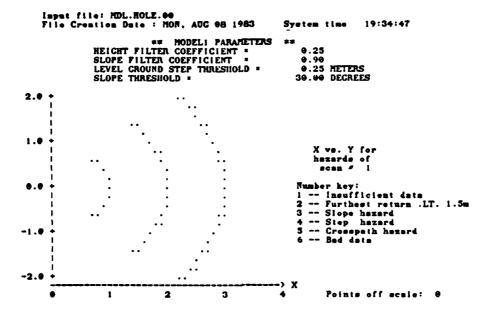
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Input file: MDL.LITTLE.HOLE.12
    File Creation Date: MON. AUC 08 1983
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                                                      System time
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              HEIGHT FILTER COEFFICIENT =
                                                         0.25
               SLOPE FILTER COEFFICIENT
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               LEVEL GROUND STEP THRESHOLD =
                                                         0.25 METERS
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                                                           hazards of
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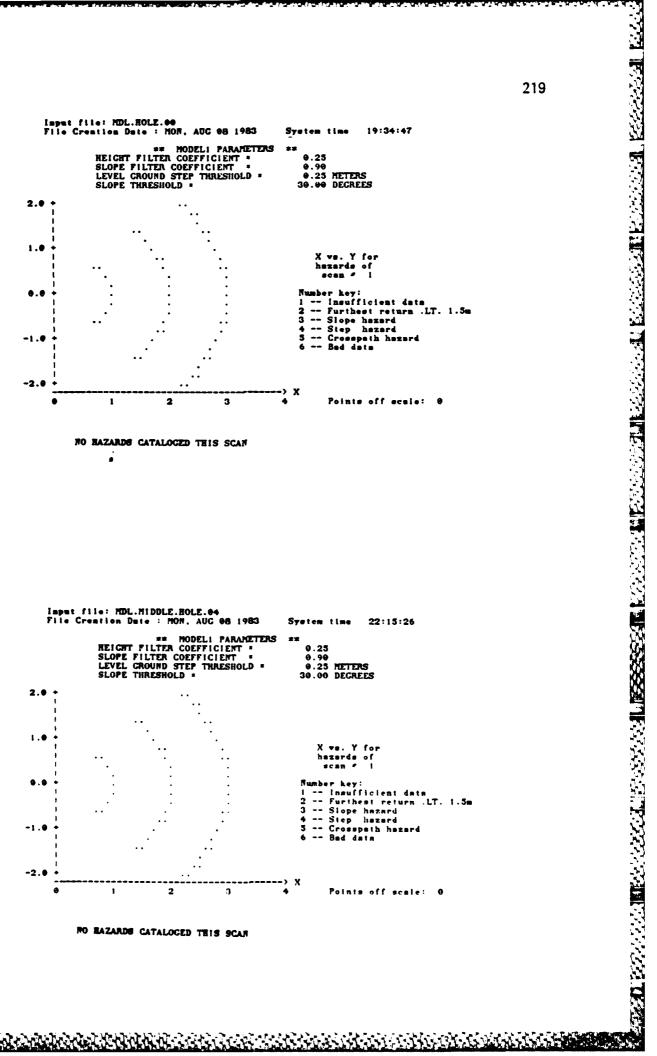


7.2.6.2 Rectangular Hole: 30 cm x 60 cm

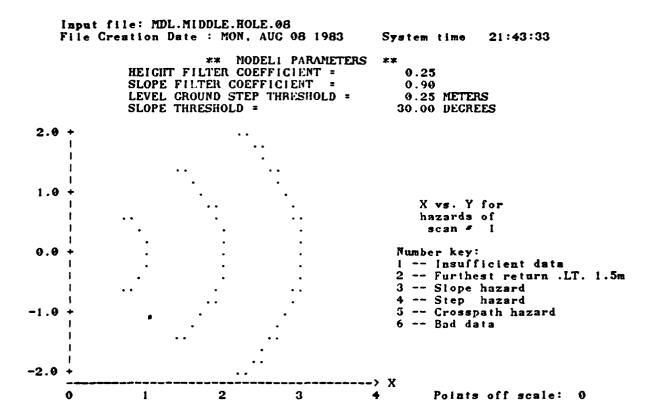
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7.2.6.2.1	10 cm Depth	•••••	219
7.2.6.2.2	20 cm Depth	••••••	220
7.2.6.2.3	25 cm Depth	•••••	221
7.2.6.2.4	30 cm Depth	•••••	222
7.2.6.2.5	36 cm Depth		223



NO MAZARDS CATALOGED THIS SCAN



NO BAZARDS CATALOGED THIS SCAR



NO HAZARDS CATALOGED THIS SCAN

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Input file: MDL.MIDDLE.HOLE.10
             File Creation Date: MON, AUG 08 1983
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                                              ** MODEL! PARAMETERS
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      31
                                 40.74
                                                                  N
                                                                         0
                                                                                        H
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                                                                                                                                                                                         0
                                 43.55
      32
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Input file: MDL.MIDDLE.HOLE.12
    File Creation Date: MON, AUC 08 1983
                                                        System time
                                                                         21:22:45
                            ** MODELI PARAMETERS
               HEICHT FILTER COEFFICIENT =
                                                            0.25
               SLOPE FILTER COEFFICIENT
                                                            0.90
                LEVEL CROUND STEP THRESHOLD =
                                                            0.25 METERS
                SLOPE THRESHOLD =
                                                          30.00 DECREES
 2.0
                                                              X vs. Y for
                                                              hazards of
                                                               scan #
 0.0
                                                          Number key:
                                                          1 -- Insufficient data
                                                            -- Furthest return .LT. 1.5m
                                                            -- Slope hazard
                                                            -- Step hazard
                                                            -- Crosspath hazard
                                                            -- Bad data
-2.0
     0
                              2
                                          3
                                                                Points off scale:
                                                            HAZARD TYPE
                      RANCE
AZIMUTH
             (deg)
          -43.56
-40.74
                      N O
                                                           LOGED
                                       R D
                                     ARDS
ARDS
ARDS
ARDS
                                                        A L
A L
A L
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                                                 C
                                                              0
                                                                GED
                              H
    2
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    3
           -37.93
                       N
                              H A Z A
H A Z A
H A Z A
           -35.13
                      N O
                                                 CCC
    4
                                                      T
                                                             0
                       N
    5
           -32.31
                         0
           -29.50
                       N
                         0
                                       RDS
                                                             0
    6
                                  ZARDS
ZARDS
                                                      TALO
TALO
                      N O
                              H A
                                                 CCCCC
                                                    A
    7
           -26.69
    8
           -23.88
                       N
                         0
                              H A
                             H A Z A R D S
H A Z A R D S
H A Z A R D S
H A Z A R D S
H A Z A R D S
H A Z A R D S
                      N O
                                                      TALO
    9
           -21.08
                                                      TALOGED
TALOGED
                                                    A
   10
          -18.26
                       N
                         0
                      N
          -15.45
                         0
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   11
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                        0
           -12.64
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   15
            -4.22
                                1.50
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                                         -0.04
                                                    0.05
                                                              Crosspath hazard
   16
            -1.41
                              HAZARDS
HAZARDS
                                                 C A T A L O G E D C A T A L O G E D
                      N O
             1.40
   17
             4.21
                      N O
   18
                                          0.19
                       1.56
                                1.55
                                                   -0.32
                                                              Step hazard
             7.02
   19
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                                                   -0.29
                                                              Step hazard
                                1.70
                       1.71
   20
             9.83
                       1.56
                                1.54
                                                   -0.32
                                                              Step huzard
                       1.71
                                          0.29
                                1.68
                                                   -0.30
                                                              Step hazard
                                                   -0.30
                                          0.29
                                                              Step hazard
                       1.71
                                1.68
                                1.55
                                          0.35
                                                   -0.27
                                                              Step hazard
   21
            12.64
                       1.59
                                                   -0.29
                                          0.37
                                                              Step hazard
                       1.71
                                1.67
                                                             Step hazard
O C E D
            15.45
                       1.45
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                                          0.39
                                                   -0.28
                              HAZARD
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            18.26
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HAZARDS
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   26
            26.69
                      N O
                                                      TALO
                      N
                                                    Α
   27
            29.50
                        0
                              HAZARDS
   28
            32.31
                       N
                                                      TAL
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                         0
                              H A Z A R D S
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H A Z A R D S
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   30
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                      N O
                                                    Α
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                                                      T
                                                        A L O
            40.74
                      N O
   31
                       N O
                                                 CATALOGED
            43.55
   32
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Imput file: MDL.MIDDLE.HOLE.14
File Creation Date: MON, AUG 98 1983
                                                                                                                                                             ** HODELI PARAMETERS
HEICHT FILTER COEFFICIENT =
SLOPE FILTER COEFFICIENT =
LEVEL CROUND STEP THRESHOLD =
SLOPE THRESHOLD =
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0.25
0.90
0.25 METERS
30.00 DECREES
  2.9
    0.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Insufficient data
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Furthest return Slope huzard Step huzard Crosspath huzard Bad data
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  .LT. 1.5m
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               --
-2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RAZARD TYPE

O G E D

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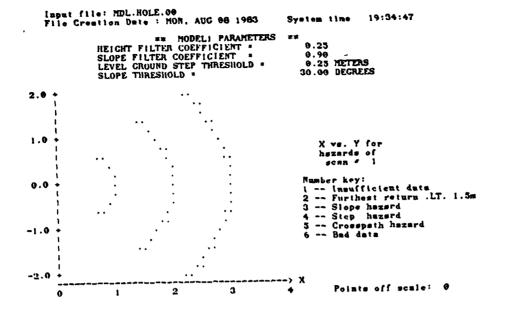
O G E D

O G E D

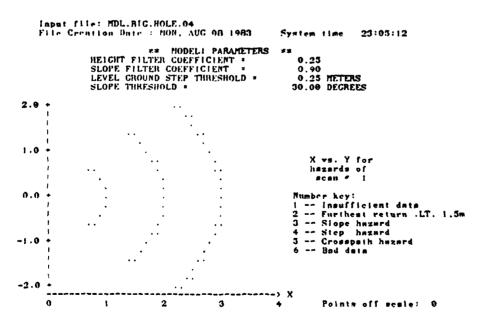
O G E D
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18.26
21.07
23.88
26.69
29.50
32.31
35.12
37.93
40.74
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7.2.6.3 Large Square Hole: 60 cm x 60 cm

7.2.6.3.1	0 cm D	epth	 225
7.2.6.3.1	10 cm De	epth	 225
7.2.6.3.2	20 cm De	epth	 226
7.2.6.3.3	25 cm De	epth	 227
7.2.6.3.4	30 cm De	epth	 228
7.2.6.3.5	36 cm De	epth	 229



NO RAZARDS CATALOGED THIS SCAN



NO HAZARDS CATALOGED THIS SCAR

```
Input file: MDL.BIG.HOLE.08
      File Creation Date: MON. AUC 03 1983
                                                                                             23:00:51
                                                                       System time
                                   ** MODELL PARAMETERS
                    HEIGHT FILTER COEFFICIENT =
                                                                            0.25
                    SLOPE FILTER COEFFICIENT =
                                                                            0.90
                                                                          0.25 METERS
30.00 DECREES
                    LEVEL CROURD STEP TERESHOLD =
                    SLOPE THRESHOLD =
 2.0
 1.0
                                                                               X vs. Y for
                                                                               hazards of
                                                                                 scan #
                                                                          Number key:
 0.0
                                                                            -- Insufficient data
                                                                             -- Furthest return .LT. 1.5m
                                                                             -- Slope hazard
                                                                                 Step hazard
                                                                          5
                                                                             -- Crosspath hazard
-1.0
                                                                             -- Bad data
-2.0
                                      2
                                                      3
       0
                       1
                                                                                  Points off scale:
                                     X Y Y H A Z A R D S H A Z A R D S H A Z A R D S H A Z A R D S H A Z A R D S H A Z A R D S H A Z A R D S H A Z A R D S H A Z A R D S H A Z A R D S H A Z A R D S H A Z A R D S H A Z A R D S H A Z A R D S H A Z A R D S H A Z A R D S H A Z A R D S H A Z A R D S
              (deg)
-43.56
 AZIMUTH
                             RANCE
                                                                              RAZARD TYPE
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             -12.64
                             1.55
                                                    -0.34
                                                                -0.21
                                                                               Step hazard
                                      H A Z A R D S
H A Z A R D S
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                                                               C
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ATALOGED
    13
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               -7.02
                             N O
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               -4.22
                             1.71
                                                    -0.13
                                                                               Step hazard
                                     H A Z A R D S
H A Z A R D S
H A Z A R D S
H A Z A R D S
H A Z A R D S
H A Z A R D S
                                                              CATALOGED
CATALOGED
CATALOGED
CATALOGED
CATALOGED
CATALOGED
    16
               -1.41
                             N O
                             N O
    17
                1.40
    18
                4.21
                             N O
    19
                7.02
                             N O
                             N
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    20
                9.83
                                           2 A R D S
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                                                                              Step hazard
O C E D
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               12.64
                             1.71
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                                     HAZARDS
                                                               C A
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               40.74
                                                                        ALO
                                                                                 C
                                                                                    E
    32
               43.55
                             N O
                                     HAZARDS
                                                               CATALO
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```
Input file: MDL.BIG.HOLE.10
    File Creation Date: MON, AUG 08 1983
                                                                  22:51:40
                                                   System time
                         ** MODELI PARAMETERS
              HEIGHT FILTER COEFFICIENT =
                                                      0.25
              SLOPE FILTER COEFFICIENT
                                          =
                                                      0.90
                                                      0.25 METERS
              LEVEL CROUND STEP TRRESHOLD =
              SLOPE THRESHOLD =
                                                     30.00 DECREES
 2.0
 1.0
                                                        X vs. Y for
                                                        hazards of
                                                         scan #
0.0
                                                     Number key:
                                                     1 -- Insufficient data
                                                     2 -- Furthest return .LT. 1.5m
                                                     3 -- Slope hazard
                                                       -- Step hazard
-i.0
                                                       -- Crosspath hazard
                                                       -- Bad data
-2.0
                                                          Points off scale:
                           2
                                      3
     0
 AZIMUTH
            (deg)
                    RANCE
                           HAZARDS
                                                       HAZARD TYPE
          -43.56
                    N O
                                             CA
                                                   ALOGED
                               Z A R D S
Z A R D S
Z A R D S
Z A R D S
Z A R D S
Z A R D S
         -40.74
    2
                                             C
                                                 T
                    N O
                           HA
                                                   A
                                                     L
                                                        OGED
    3
         -37.93
                    N O
                           H A
                                                      L
                                                        0
                                                          GED
         -35.13
                    N O
                           H A
                                                            E D
E D
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    6
         -29.50
                    N O
                           H A
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                                                 TA
                                                     L O
    7
         -26.69
                                            C A
                                                 TALOG
                    N O
                           H A
                                                            E D
                           H A Z A R D S
H A Z A R D S
H A Z A R D S
H A Z A R D S
    8
         -23.88
                    N O
    9
         -21.08
                    N O
                                            C A
                                                 TALOGED
  10
                                                 TALOGED
TALOGED
         -18.26
                    N O
  11
         -15.45
                    N O
                                             CA
  12
         -12.64
                    1.55
                             1.51
                                                       Step hazard
                                     -0.34
                                              -0.22
  13
          -9.84
                    1.71
                             1.68
                                     -0.29
                                              -0.27
                                                       Step hazard
  14
          -7.02
                    1.71
                             1.70
                                     -0.21
                                             -0.27
                                                        Step hazard
  15
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                                                       Step hazard
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          12.64
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                                                .26 Step hazard TALOGED
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HAZARDS
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  24
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                    N O
  25
          23.88
                    N O
                          HAZARDS
  26
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                    N O
                          HAZARDS
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HAZARDS
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         37.93
                   N O
                                            C A
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  31
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                   N O
                          RAZARDS
                                            C A
                                                T A L O
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HAZARDS

32

43.35

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Input file: MDL.BIG.HOLE.12
      File Crestion Date: MON, AUG 08 1983
                                                                       System time
                                                                                            22:45:28
                                   ** MODELI PARAMETERS
                   HEIGHT FILTER COEFFICIENT =
                                                                           0.25
                   SLOPE FILTER COEFFICIENT
                                                           =
                                                                           0.90
                   LEVEL CROUND STEP THRESHOLD = SLOPE THRESHOLD =
                                                                           0.25 METERS
                                                                          30.00 DEGREES
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 1.0
                                                                              X vs. Y for
                                                                              hazards of
                                                                                scan *
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                                                                          Number key:
                                                                          1 -- Insufficient data
                                                                            -- Furthest return .LT.
                                                                            -- Slope hazard
                                                                            -- Step hazard
                                                                            -- Crosspath hazard
                                                                            -- Bad data
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H A Z A R D S

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Imput file: MDL.BIC.HOLE.14
File Creation Date: MON. AUG 08 1983
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LEVEL CROUND STEP THRESHOLD =
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